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Tumors

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I will take for granted what I have written in the Journal of the Osteopathic Association under the caption Cancer. I have taken Cancer there as the title. (1) Because its popular acceptance includes every maligant tumor form; (scientifically cancer represents the ultimate and most complex malignant growth known to pathology) and (2) because I believe that the malignant is the typical tumor form. By this I mean that every malignant tumor was primarily a benign tumor or passed through the stage of benign pathogenesis, whether in tumor form or not.

Hence while pathological differentiations may be of value for educative and diagnostic purposes, I do not believe they are of any special value in connection with treatment. The original causes are similar, whether the tumor is benign or malignant, and if the malignant stage represents a curable condition, certainly the benign does also.

As a prelude to our discussion of this subject and a preparation for our answer to the question whether such conditions can be dealt with by osteopathy, I wish to give a brief summary of my views of the osteopathic system. Several medical doctors and many osteopaths have said to me that osteopathy can't possibly cure tumors of any type, much less the malignant type. I am so strongly convinced of the truth and the efficiency of osteopathy that if I believed or could be convinced that any form of disease was not amenable to osteopathic treatment as I understand it, I should at once abandon the osteopathic profession. If I believed that the osteopath could be anything else than a full fledged physician in the fullest sense of the term I would at once write osteopathy with a small *o* and announce my renunciation of its truthfulness. The law may limit our field in some states and it may restrain us in our active operations by reason of our undeveloped state but our principle as I understand it is a universal law. I ask, can there be any limitation to such a universal principle?

The answer to this question hinges on the fact that the theory of treatment we advocate and apply is different from that advocated and used by other practitioners. Our method is differentiated from that of other systems in this that *they* deal with disease from the side of stimulation, using something, generally a noxious substance or its equivalent, to modify, control or aid the side of stimulus in connection with the cell, tissue and organ activities. Our method, on the other hand, depends on the fact that we assist the resisting power of the cells, tissues and organs of the body on the principle of adjustment. Perfect health depends on the adjustment of the organism in all its parts to itself and to its environment. All systems aim ultimately at using the native vitality—*Nature*—as the curative means.

The Osteopathic School of Medicine uses the method that is based on the

self-sufficiency of the organism in vitality, materials and active processes, provided there is perfect structural and environmental adjustment.

Our fundamental propositions are, (*a*) the organism as the instrument of the vitality is built on a definite structural foundation and constructed on a definite plan of anatomic architecture. Hence the adjustment of the body to itself as a whole and to its parts is the foundation of perfect life which is health.

(*b*) Within the organism is found all the necessary apparati for the activities of life and for their regulation and repair. The basis of vital activities in the physical sense is vibratility. Hence this physical principle may be used as a means of appealing to the vital activities for the purpose of *correcting* their distribution by physical means.

(*c*) Within the organism are found all the necessary proximate principles that are required for life, for its regeneration and recuperation, provided the raw materials of food, water and oxygen are supplied to the organism. These are supplied in the dietetic field and in the field of respiration, open air exercise and changed climatic conditions.

(*d*) Pathological conditions always originate in connection with disturbances in the *vital distribution* of the forces and fluids by the maladjustment of the structures or the functional activity of the tissues or organs. For example, inflammation represents a sign of disturbed circulation or nerve force, the disturbance depending on or being caused by some primary alteration of adjustment that we call a *lesion*. Here there is disturbed adjustment, symptomatic of a dying or death condition of some particular tissue or organ of the body and caused by the *obstruction* to the vital distribution. This disturbance prevents the general vitality from controlling the particular part that is affected; and if the part affected continues in this isolated or irritated condition the reaction will produce disorders in the organism that mean unhealth and ultimately result in organic death.

(*e*) From this standpoint restoration to normal by treatment of any kind must take place in connection with the adjustment of the parts affected to each other and to the body as a whole, as well as to the environment.

Therapeutics, therefore, as a science, is based on the uninterrupted, unobstructed and unirritated *distribution* of the life forces and fluids. Any mechanical maladjustment of structure, including malposition and malrelation of any tissue, organ or cellular structure may give rise to or maintain this obstruction of the fluids and forces and establish a disease condition. This represents the etiology.

Resulting from this, we find a disturbance of some vital process or processes, cellular, tissue or organic, and this disturbance reacts upon the activities or functions producing symptoms or signs of perverted physiological action. This perverted physiological action is expressed by symptomatology and also marks the first stage in pathology.

Following this and as a result of perverted activity, nutritive and trophic disturbances arise; and here we have the degenerative changes marked by physical and chemical processes taking place under weakened physiological action, or the entire withdrawal of life force from the degenerative field. These changes produce the morbid anatomy side of pathology.

What concerns us more is the therapeutic side and its etiological factor, because it is the first cause that leads to and makes possible the other changes.

For this reason maladjustment is the key to diagnosis and adjustment is the key to therapeutics. The essential principles, therefore, of our method of treatment are, (*a*) normal structural adjustment is associated with and conserves normal functioning; (*b*) normal nerve and blood supply to any

part of the body is the basis of health in that part, and the normal distribution of the nerve and blood supplies to the different parts of the body is the basis of body health.

Most, if not all diseases, are associated with structural alterations in the adjustment of the cells, tissues and organs. The results of these abnormal relations are; *disturbed nutrition*, in which case the part disturbed falls below par and ceases to co-operate with and to be co-ordinated to the rest of the body. This disturbance may also produce a *lessened resistance* in tissues or organs, with the result that they (tissues and organs) become susceptible to other disease producing agencies, such as germs, toxins, improper food, foreign substances, etc.

The changes taking place, therefore, in the structure of the body, whether microscopic or crude, represent alterations in the vital mechanism resulting in disturbed functioning.

Instead therefore of attempting to *modify symptoms* by stimuli, applied to the functional activity field, as medical doctors do, we claim that mechanical stimulation (in the wide sense, corrective or otherwise) applied directly to the part involved or indirectly through the modification towards normal of its nerve and blood supply, acts efficaciously in restoring the adjustment of the structures through which body vitality operates in connection with the co-ordinated and co-operating vital activities.

The body, as the organ of the mind and the medium of vital expression, is a self-regulated mechanism composed of the same substances and is subject to the same laws as the rest of the universe. Hence, if this mechanism, operating in connection with the vitality, *is adjusted*, (1) to itself and its own operations in connection with the articulated mobility of its structures, and (2) to its environment that is germane to its harmonious development within and without, it will remain in a state of health.

That the body is not perfect in this twofold adjustment is the foundation of disease and of the profession of healing. There are certain limitations to adjustment, these limits arising from the mechanism itself or from its environment. Hence the duty of the physician is to adjust the organism to itself and to make the environment as favorable as possible, so as to remove all the limitations to perfect organic life.

In this field we have the widest possible scope for *adjustive measures* to accomplish this purpose, including; (1) Manipulation to correct structural adjustment, to establish perfect circulation and the normal distribution of nerve energy; (2) diet, climate, water, heat, sunlight and open air exercise are to be used as adjustive measures or means to maintain and restore normal nutrition, normal respiratory action, the rhythmic activities and articular mobility of tissues and organs; (3) operative surgery is an adjustive measure when it is necessary to remove any part of the body that becomes hazardous to the organic life or detrimental to the perfect expression of perfect vitality in the organism. In connection with this anti- and aseptic measures become necessary in order to preserve the body or its parts from the destructive influences of sepsis, either in the body or its environment; (4) in the case of the presence of toxic substances, either the result of autointoxication or of the cumulative action of poisons taken into the system, when the antidotal function of the glandular organs is suspended or deficient, it may be necessary to use antidotes for such poisons in connection with elimination, in order to remove the poisons from the system, so as to preserve the body life from destruction.

(5) Hygiene measures in the field of preventive medicine are necessary to prevent the spread of germs and the action of their toxins upon the body organism. Hence if there are germicides these belong to the field of ad-

justive measures that are valuable in attempting to maintain the normal adjustment of the organism.

These five fields represent the lines of adjustment at the command of and belonging to the osteopathic physician and his system. While we do not claim to have revolutionized the healing art and while giving respectful homage to the workers in other fields of therapeutics for what they have done for the welfare of humanity, we believe that we have a method of treatment, based upon the principle of adjustment as the universal law of healing, which is better able to cope with disease than the other methods. Believing that when we apply this law as an all round principle in the field of disease, patients are better cared for when the whole personelle of the patient, including his body, his diet, his exercise and his manner of living in every particular is under direct and continuous supervision, we have applied the principles of this method to the treatment of tumors representing neoplasms implanted within and growing upon the nutritive substance of the cells of the body.

Origin of Tumors

Much discussion has taken place as to the origin and cause of tumors and regarding their pathology. The tumor, in our view, is *an excretion*, an excrescent growth appended to or implanted in some tissue or organ of the body; and when such appendage or implantation exists the excrescence becomes the dumping ground for the waste of the organism. The tumor, then, we regard as an effort of nature to get rid of something, organic life attempting to eliminate.

Tumors, divested of all hypothetical and mystical conceptions, represent simply "an unlimited excessive proliferation of the cells of fixed tissues." In regard to causation some, like Herzfeld claim "no tumor without trauma." (Zeitschrift fur Krebsforschung, 1905, III p. 72; zur statistik der Hautcarcinome des Kopfes, und Halses Anton Miller, Zeit. f. Krebsforschung, 1907 (6) 64). Councilman ridicules the idea of a traumatic etiology of tumors. (Boston Med. & Surg. Journal, Sept. 5, 1907, p. 313).

However, from the side of histology the proliferation that takes place in the reparative process in connection with injuries, lacerations, tears, etc., may pass over the normal histological bounds and represent the starting point of a pathological growth (tumor). In the malignant tumors patients seldom give a history of traumatic proliferation at the point of the trauma. In some cases there is undoubtedly evidence of trauma as an *exciting cause*. The statistical records seem to point out two facts worthy of note, whether they are absolutely credible or not, (1) that chronic irritations frequently give rise to carcinoma, the chronic irritation affecting the superficial epithelial covered surfaces, in which case originates the carcinoma; and (2) that single traumatic conditions give rise to sarcoma, the trauma affecting bone, periosteum and the fascia.

In both these cases the proliferation resulting from the trauma does not stop when the injury is repaired! Why? I believe because, (1) anatomical structural lesions prevent the normal control of the new reparative proliferating process; (2) physiological limitations are not maintained in the repair processes, because these are exaggerated in the organism in which the neoplasmic growth takes place, probably by toxic conditions causing over stimulation, by wastes due to lack of elimination and the presence of by products in the circulation; and (3) that the element of lack of control figures largely in such cases is evidenced by the profound disturbance produced by worry, anxiety and psychic disturbances.

Within the past year it has been suggested that tumors originate from

spiral organisms analogous to the *spirochoeta pallida* found in syphilis. Dr. Ewing's experiments seem to negative this idea, only one instance being found in which these organisms were present and then they were found in the *necrotic* substance.

Dr. S. P. Beebe (A. M. A. J. Nov. 2, 1907, pp. 1492–3) claims that a percentage of tumor animals spontaneously recover and are then immune from further implantation by a tumor substance of similar virulence. Another point of greater importance is that an immune animal may become susceptible by anything which will "diminish his general resistance;" for example, following several hemorrhages, after the domestication of the free animals. Does this not indicate that the underlying condition that makes localized tumor formation possible is a systemic or constitutional condition?

Dr. Beebe, in giving his conclusions, says: "We are inclined to believe that the blood may contain some expression of the immune condition of an animal." If so, the blood also contains the elements of susceptibility. Immune blood is not a favorable medium for the preservation or cultivation of the tumor cells. Serum extracted from an immunized animal has a destructive influence on the tumor cells. Hence, we may conclude that the blood contains certain destructive factors, that makes the blood if normal an active destroyer of the cancer conditions.

Dr. G. W. Crile transferred the entire blood of an immune animal to animals with the growing implanted tumors, with the result that the growing tumors retrograded. (Blood examination in the diagnosis of Malignant Diseases, Ira S. Wile, N. Y. American Journal of Surgery, Nov., 1907, pp. 339–41).

In the history of these implanted tumors we find some interesting data, (1) The tumor at first is benign, with little if any infiltration and with no bad effects upon the general constitutional condition of the animal. (2) After the tumor assumes its malignant form, metastases take place and with these processes cachexia develops. The development of the cachexia is late, "when there is a comparatively large amount of autolyzed tumor products, capable of absorption." This means that elimination of these products takes place until they become so abundaut that they can neither be destroyed in or eliminated from the system with resultant absorption by the tissues. (3) The cachexia condition of the animal is associated with the presence of toxic substances in the necrotic tumors, these toxic substances being especially active in connection with the erythrocytes with a hemalytic effect, but also being toxic to all the body cells. (4) These facts indicate that such tumors are not infectious, but their products are toxic. The fact that tumors can be implanted does not indicate an origin from the action of a micro-organism, but the active cell of the tumor itself becomes implanted in the tissue soil and grows if the soil is suitable. (5) The tumor cells have the special function of growth developed to an enormous degree, while the tissue cells have lost their protective and defensive functions to a large extent by lessened resistance. This enormous growth and rapid growth gives to the tumor cells a characteristic of unstable equilibrium as compared with the normal tissue cells. Hence irritants of all kinds excite this unstable cell growth.

The Lesion and Tumor Growth.

This *lessening of resistance* gives us the foundation for our lesion theory in the lesions of a life-time, with all the disease effects of the same life-time, lowering resistance to such an extent that when localization takes place, the growth develops rapidly at the expense of the tissue cells.

The meaning of all this, as we interpret it, is, (*a*) the *lesion* as the *basis* of lessened resistance, the *origin* of localized conditions in connection with traumatism, over activity, inactivity, etc., and the *maintaining* lesion keeping up the unbalance between the new growth and the normal cell status and development; (*b*) toxicity as the environment in which the normal cells, including the blood cells, are kept, until the poisoned effects upon the cells and tissues result in necrotic processes or more simple degenerative processes that weaken the cell vitality and give full scope to neoplasm growth.

(6) This function of growth in connection with the tumor development extends down to the deepest parts of the organism. Recent researches in the autopsy field, *e. g.* have demonstrated that metastases are found in the bones much more frequently than was at one time supposed. Frankel declares that in 20% of the cases of carcinoma in autopsy there was bone metastasis (Munch. Med. Wochschrift, p. 383. 1902). Fisher–Defay found the bones involved in 25.7% (Zeitschrift fur Krebsforschung, III 195, 1905). The insidious character of these metastases is shown by the fact that there is no bone swelling or deformity, but that the change is found in the marrow field, cancer tissue taking the place of the marrow substance. When the development extends further, we find, either (*a*) an infiltration of the bone tissue. [This infiltration process is found most extensively, in some cases taking in the entire skeletal structure;] or (*b*) osteoplasia, resulting in proliferation with thickening and hardening of the bone The marrow of the bones seems to be a favorite field for the lodgment and growth of the cancer cells. Von Recklinghausen in 1891 pointed out that cancer of the prostate, even in its earliest stages, is associated with a general infiltration of the skeleton by the cancer cells. Mammary cancer is also associated very frequently and extensively with the bone metastasis. Similarly pancreatic and thyroid gland cancers show this tendency to osseous infiltration. Less frequently do we find this bone metastasis in uterine, rectal, cutaneous intestinal and stomach cancers.

This seems to be at least one reason why operation in many of the so called inoperable cases tends to hasten a fatal termination, producing an extension into the field of operation of the cancerous development (Anton Miller, Zeitschrift fur Krebsforschung, 1907 (6), 64).

Dr. Engel notes the retrogression to embryonal conditions in connection with blood production and development in the malignant diseases. This retrogression is noticed chiefly (*a*) in the blood forming organs, and (*b*) in those organs which in the embryonal stage are blood forming but in later life cease to have the blood forming function. This latter applies chiefly to the liver. In post-embryonic life the liver has nothing to do with blood construction, but it returns or reverts to this blood forming function in the anemias, syphilis, cancer, etc. The same thing is true of other organs and tissues. For example, if epithelial cells return to the embryonal characteristics, then rapid proliferation takes place, without check or control from the nervous system and surrounding tissue. This is what we find in epithelioma.

Under normal physiological conditions, according to Engel, embryonal cells are kept in check; but when such check is not preserved then the physiological condition is changed into a pathological with resultant moles, warts, birthmarks, etc.

Ehrlich has demonstrated that embryonal tissue has a decidedly disturbing effect upon a growing cancer. Pregnancy, in other words, tends to immunize the organism to cancer development. Hence Engel concludes with the suggestion that "the application of young human embryos may have an immunizing and possibly a curative effect in case of malignant tumors in man." (Rueckschlag in die embryonale Blutbildung und Entstehung boe-

sartiger Geschwuelste, C. S. Engel, Berliner klinische Wochenschrift, Oct. 7, 1907, Vol. 44, No. 40.)

(7) Attempts to find a cure for tumors, outside of the field of surgery, have been limited largely to the use of toxins. The special value of these experiments has been (*a*) to demonstrate the instability of the tumor cell as compared with the normal cell stability. The toxins disturb this unstable equilibrium, demonstrating, (*b*) that the tumor cell is especially characterized, physiologically, by an enormously developed function of growth, with a lessened control of this growth, diminished means of defense on the part of the organism and lessened resistance in the tissues. Attacks of erysipelas have been noticed to exert a checking and even curative influence upon malignant tumor growth. This led to the inoculation with the streptococcic cultures, to produce artificially this restraining and curative influence. Dr. W. B. Coley, of New York, directed attention to the value of a mixed toxin produced by mixing the bacillus prodigiosus with the streptococcic culture. (Amer. J. of Med. Sc. March, 1900). *How is this explained?*

The result of these experiments indicate, (*a*) that the bacterial toxins exert a destructive influence on the tumor cells, greater at the point of local growth, lessened when systemic influences operate upon the toxins; (*b*) the tumor cells have become capable of almost unlimited multiplication at the expense of their capacity of self defense. Hence the tumor cells are less resistant to the toxin action; (*c*) as the substance of the broken down tumor cells become absorbed certain antidotal substances are developed in the fluids tending to increase the general resisting power of the organism.

(8) Experimental attempts artificially to produce conditions at least simulating malignant growths have brought out some important facts. Virchow claims that the origin of tumors was to be traced to irritation. A long line of experiments has been presented since then to demonstrate such an artificial reproduction. The results of these experiments may be summarized; (*a*) mechanical irritation alone could not produce the proliferation typical of a malignant growth; (*b*) the proliferation is due to the lessening of the control of the localized tissue, resulting in lessened resistance *plus* a chemotactic influence.

The process of artificial production seems to consist of, so far as our experiments indicate, (1) the lessening of tissue tonicity; (2) the absorption of some foreign element; (3) the proliferation of the cells with lessened resistance, and (4) the degeneration of the cells with lessened resistance. Hence we find that in order to give origin to such malignant tumor proliferation there must be, (1) the withdrawal of vital force influence and nervous force control, resulting in (2) purely physico-chemical relations in the localizes tissues; and (3) resultant proliferation of certain cells; (4) probably the production of a substance within the localized area that has the power of attracting the cells with lessened resistance, drawing them into the field of its influence and keeping them there until they form a compacted mass. (See also Fischer's experiments, Muenchener Med. Wochenschrift 1906, 53, 2042.)

This substance represents degenerated nutritive substance degraded "tigroid substance," particularly the bioplasm or biogen substance of the nervous system and cerebro-spinal fluid. This degenerated material, toxic in character, whether produced in the system by auto-intoxication or the poisoned product of cerebro-spinal metabolism, poisoning taking place by foreign poisons, (a) would tend to separate certain cells; (b) these separated cells, partially cut off from central control, would under chemotactic influence tend to proliferate rapidly, compared with the normal cells, nature meantime walling in the process and the resultant products, so as to pre-

serve the organism as in abscess and tubercle formation; (*c*) the different varities of tumors would be explained by the varying form of this degenerated substance, determined by the life long toxemias and the field of ultimate development, determined by the localized solution of continuity, separation of cells, loss of trophic influence as a result of lesions, etc. (*d*) another result of these experiments seems to point, as Dr. Adams of Montreal suggests, that "having used the toxins of one order to bring the tumor down to a certain point, they should experiment with other toxins to see whether for instance, alternating the prodigiosus with the coli, etc., using different toxins one could not get rid of this remnant and so bring about complete cure."

This suggests the principle that if we can utilize the various secretions formed in the body and furnished by all the different fields of secretion, the same results may be obtained. This is in line with the fact stated by Beard and others, that when such toxins are used, the result is not so much due to the action of the toxic principles, as to the action of certain enzymes produced by the bacterial action, liberating certain proteolytic and other ferments and allowing them to operate upon the tumors to disintegrate them. This is demonstrated, by the fact that in the tumor disappearance, there is, (1) an increased leucocytosis, both localized and systemic; (2) a necrobiotic process in the tumor tissue; and (3) an absorption of the coagulation necrosis substance.

Another important point emphasized by these experiments is that the retrogression marking the tumor cells may take place, (1) from the weakening of body influences. Here we have the idea of lesions found in connection with a life history of defective or abnormal conditions or disease; (2) from some external agency such as poisons. Here we have toxicity which the body detoxinating organs and antidotal materials cannot overcome or eliminate. The organism has the power of destroying poisons, of antidoting them and of eliminating them. But these capacities may be overborne by the excess in quantity or the slowly cumulative action and effects of the poison. In this case the systemic poisoning results in a localized condition of malignancy.

We find certain poisons of the nature of toxins with the chemical composition of lipoids. Kyes has demonstrated that certain toxin substances in the colio-poison combine with lecithin in the formation of lecithids. These act as antibodies and antidotes in the animal body. Similar hemolytic substances may be extracted from the mammalian organs and the blood serum by heat and alcohol. Friedemann recently extracted a toxin from the pancreatic juice obtained per fistula which when combined with lecithin became markedly hemolytic. These complex substances have the power of destroying the red blood corpuscles resulting in toxic anemias.

The Osteopathic Theory.

The sum and substance of the osteopathic theory is that the body consists of a mass of cells, differentiated in groups histologically according to the functional process which the group of cells must serve. Each of these cells if normal reacts to its environment so long as the environment is normal. Given then a normal cell and its normal environment in the structural and environmental fields and every cell in the body will live a normal life.

Recently we have reports of the death of a scientist in Chicago (Fuchs) and a noted physician in Rochester, N. Y., from cancer, produced by the excessive exposure to the X-Ray. Why? (1)The X-Ray acts very powerfully on cell growth. (2) It also acts upon the cells to the extent of producing cell dissociation, dissolving the bonds that unite cell to cell. These bonds blend the cells normally in a commonwealth of activity, each one

operating in its own field and yet co-operating with every other cell. Hence (3) the result of the X-Ray action is to produce an uncontrollably rapid growth of the cells, each cell living its own life, rather than all the cells living a common life, with the result that this rapidly growing life becomes a degenerate existence, toxic in itself and assimilating all the toxic, waste and uneliminated elements found in the system. (4) The dissociation and separateness of the cell life is clearly demonstrated in certain cases in which fibroma, sarcoma and carcinoma have been found in the locus field of tumor development.

Dr. C. A. Whiting of the Pacific College recently exhibited slides made from pathological specimens of a uterus growth in which fibroma, adenoma, sarcoma and carcinoma were found. Dr. Whiting claims that this demonstrates that one form of neoplasm itself nonmalignant may originate the growth of intensely malignant growths. It also demonstrates the fact that tumors pass through a historical process of development and that even when the tissue cells of localization are the same, differentiation of types may exist in the developmental process.

Sometime ago I treated a case diagnosed by the doctors as a case of uterine cancer. He told the patient that she had a bunch of tumors. On examination I found that the uterus was much distended, about the size of a six months pregnancy. On deep palpation the uterus felt like a sac of large pebbles. Medicine had done nothing for the case. Some typical lesions were found, (1) Enlargement of soft tissues around the sacrum and lower lumbar; (2) displacement of the last lumbar which made patient feel as if on bending back, the back were broken; (3) Twisted pelvis with marked left innominate displacement; (4) Enlarged and tender left mammary gland, with displaced 4th rib (left), also very sensitive; (5) displaced left clavicle so much so that left arm dropped and acted much as if dislocated, because not free use of arm; (6) Several twisted vertebrae marked by irregularities, especially 4th and 5th dorsal, 12th dorsal and 1st and 2nd lumbar; (7) an atlas lesion very anterior with history of chronic crazing headache. After prolonged treatment in correction of the maladjustments, with careful attention to diet, menstruation began in the beginning of the month of June and kept up without cessation for over six weeks. No attempt was made to check it, because I anticipated an elimination process in connection with menstruation. During the six weeks, twenty-six tumor masses were discharged all well compacted some of them organized blood masses, with implanted tumor cells; and on examination pathologically they were found to consist of six varieties of pathological tumors from the most innocent to the most malignant type. The patient is well at the present time except for the recurrence of headaches which are always relieved by correction of the atlas and relaxation of the rigid muscular conditions in the neck and interscapular areas.

Some interesting points have been developed by experiments made upon the lower animals. (1) We find that in the earlier stages of sarcoma and carcinoma the tumor cells invade the blood vessel walls, more markedly in the veins than in the arteries. These tumor cells pass beneath the intima in the veins and only into the outer coat in the arteries setting up periarteritis. (2) The tumor cells of the benign variety do not seem to invade the walls of the blood vessels but the tumor cells of the malignant variety do invade the vessel walls producing vascular degeneration. This vascular degeneration tends to promote absorption and dissemination of the cancer cells. (3) When a growth becomes malignant in the focal field of its development the normal regularity of blood vessel distribution peculiar to the organ or tissue gives place to irregularity of blood vessels, with the forma-

tion of new vessels in the area of rapid proliferation. As the growth develops the central part breaks down and the vessels cease to exist. Newly formed vessels developed around and in the envelope. In sarcoma the blood vessels are regularly distributed through the new mass. (4) This indicates that the structural framework of the tumor growth is derived form the tissue or organ in which the tumor cell location takes place; but that there is a change from the structural characteristics of the tissue or organ of focus, the new structural part assuming the characteristics of the tumor cell.

This gives the tumor its specific pathology and sustains the point we have made before that the difference in qualities does not matter much from the standpoint of treatment, because it is not pathological treatment we are prescribing but physiological treatment, to increase the resisting power of the organism.

(5) The new blood vessel formation in connection with the tumefaction determines the nature and extent of the resisting power of the organism. This is of great significance in treatment, because as soon as the circulation of the blood is corrected and freed from obstruction the circulation through the tumor field aids in breaking down the tumor and carrying off the broken up substance. The newly formed blood vessels serve, therefore, not only the purpose of nutrition but also have some relation to the protective and defensive function of the organism.

The tumorous conditions therefore, test the anatomical integrity of the body and the reaction of physiological activities to the anatomical integrity. Hence, the differentiation of the histological structure of the tumors must be interpreted, not as an isolated pathological fact, but the type of tumor must be interpreted through its physiological reaction upon the organism in connection with the stroma or structure formation. This enforces the idea that the stroma formation depends on the deficiency in some and the excess in other secretions of the body; and that therapeutically the correction of the adjustment in the secretion field will determine the cessation of tumor formation and actively stir up the forces within the organism that tend to tumor destruction. (Compare E. Goldmann, Growth of Malignant disease in man and the lower animals with special reference to the vascular system, Lancet, London, Nov. 2, '07).

That such a process is possible is demonstrated in many cases. C. Ritter cites a case of inoperable sarcoma in the neck and shoulder. Part of the tumor was excised and then by suction hyperemia, using a large cupping glass, the entire tumor disappeared in one month. Ritter points out that during the disappearance there was no tendency to softening, necrosis or the expulsion of detritus. He refers to another case in which necrosis of the sarcoma tissue was found on incision, indicating necrosis in tumors as a process entirely independent of treatment. If external suction hyperemia in conjunction with spontaneous necrosis is sufficient to cure these tumors may we not reasonably expect that the adjustment of the body so as to perfect the circulatory field and cut off the field of waste or poisoned nutritive supplies will be as effective in the removal of such tumor growths. (Behandlung inoperabler Tumoren Mit Kuenstlicher Hyperaemie, Muenchener Medizinische Wochenschrift, Oct. 22, 1907 L IV, No. 43, C. Ritter).

The question arises here, will osteopathic treatment cure cancer? I put the question in this form because if it can cure the severe and malignant type of tumor, then it certainly can cure any tumor of benign or lesser malignancy type. The cases I have published are before the profession and the world. They bear the authoritative seal of at least three of us who were actively interested in taking records and watching the progress of the cases. On these and experimental tests made upon animals our conclusions are based.

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Osteopathic Nomenclature

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Some erroneous ideas seem to have gotten abroad concerning the purpose and work of the Committee on Osteopathic Nomenclature. Some seem to think that we are expected to wipe out all the terms we have been accustomed to use and go to the classics of Rome or Greece, or both, and draw lots on their treasures to see what we might be able to find. Others seem jealous over the fear that some man will not get the proper credit for the suggestions he may have made as to some term, or that it will be overlooked that he was the first one to mention the need for a scientific nomenclature. Others say we have enough terms now and too many, while others say we should have a great many more.

I have been familiar with osteopathy for twelve years, and more. One of the first things I ever heard discussed in connection with it, was an expression in depreciation of the fact that it lacked in a thorough scientific, technical language. From that day to this I have seen in print, have written about it myself on several occasions, and have read from many other pens, the need of an improved nomenclature. What, then, has been the trouble and what is the work this committee is expected to accomplish?

There has been no trouble about the number of osteopathic terms to express our ideas. Indeed, they have been more numerous than was absolutely necessary, for in some instances we have used synonyms. Again, there has been more or less conformity in the use of such terms, so that generally speaking we have understood each other fairly well in speaking and writing.

Who originated these osteopathic terms? No one man has originated all the terms in use. Most of them were originated by Dr. Still himself, such terms as best expressed his ideas in the beginning. We all learned them from him. As the science grew some of these terms were modified by other writers and teachers, according to their ideas. sometimes making them more exact and at other times only complicating matters. Sometimes the terms used were not scientific in any sense, being merely a kind of slang phrase, as the expression, a "break" in the spine.

In other words the same thing was beginning to take place in a mild way that had already taken place in the nomenclature of other developing sciences. It was to prevent this tendency by directing our nomenclature into scientific forms at the very beginning of the history of our terms that this committee was appointed. I do not know better how to illustrate my meaning than by referring to the science of anatomy.

Anatomical terms had been christened in a most haphazard way. From the beginning of the science of anatomy each investigator gave such names as he saw fit to the parts he studied. As these investigators lived in different countries, using a different language, working entirely independent of each other, not knowing of the existence of the other, perhaps, in many cases, the same parts were given very different names. The authors of anatomic text-books, who read widely and learned what was being done, or had been done in other countries, later collected these terms gradually and at the same time each author selected or rejected names from the lists of his predecessors as suited his tastes. In this way it has come about that we have inherited from the centuries past a mass of anatomic terms, excessive in the extreme, many single structures carrying double and even multiple names. Examples: The pneumogastric nerve is likewise the vagus, the tenth cere-

bral nerve, etc.; the valvula colli is variously known as valvula ileocecalis, the valvula Bauhini, the valvula Tulpii, and the valvula Falloppii. You readily recall many others. These illustrate a veritable anarchy in anatomic terminology. These terms have been passed on from lecture to lecture, from text to text, until they have become a great burden to all concerned. Teachers and pupils were both at their mercy: anatomic research was handicapped by it. All around this ballast had grown till something had to be done. A writer on this subject says: "As this naming went on by the authors of individual text books or monograms, a great many terms were proposed which never became current; others were gradually employed in a sense other than that originally intended; some attained to general anatomical parlance. The names arising, as it were, by chance, and at totally different periods in the various anatomical systems, it was scarcely possible that anatomical terminology as a whole, could manifest any general plan or have much uniformity of character, it was necessarily chaotic and incoherent — full of inequalities, contradictions, and obscurities."

It is said that in such text-books as Gray's or Morris' Anatomy there are more than ten thousand terms used therein, and that fully half and even more than half are synonyms; and also, if all the terms used in all the standare texts were collected in one book, there would be all told more than 30,000 terms. For many years this condition of the terminology of anatomy was depricated by all the leading anatomists. The anatomical societies of America, Great Britain, and Germany especially interested themselves very much in this problem. The enlarged anatomical society of Germany, which held its first meeting in Leipsic in 1887, was where the movement for revision of the terminology of anatomy first took place. The commission for work was appointed in 1889. From this time they were at work for six years. In 1895 at Basle, Switzerland, at the meeting of the society, the report of the work of the commission was made and its work announced as complete and adopted. Hence, this nomenclature is known as the BNA, the Basle *Nomina Anatomica*, the BNA being a short-hand title for a list of some 4,500 anatomical terms accepted by this society as the most suitable designations for the various parts of the human body visible to the human eye. The terms are all in correct Latin, except a few in Greek, which few have been Latinized. The majority of the terms were already in use in various text-books, but some of them were selected from monograms on anatomy not considered in text-books and a few of them are bran new, introduced into the lists where an examination of the literature showed that none of the terms hitherto coined were satisfactory.

Only one term is given to each structure. In this way the mass of synonyms which encumbered the texts can be swept away. It is no small achievement to cut the 30,000 anatomical terms down to less than 4,500 necessary terms at one fell stroke. Even more important is the exclusion of all obscure or ambiguous terms, each term employed having a definite and easily ascertainable meaning. This work has also led to the establishment of certain general principles regarding the future formation and use of anatomical terms and gives promise of a simplified and uniform terminology in anatomy henceforth.

This terminology, known as the BNA, is now adopted, we might say, almost all over the world. Gray's last edition has the BNA terms in parenthesis after the old terminology; Morris' last edition has the BNA terms in the text with the old terms in parenthesis after them. Stohr's Histology, Johnson's "Nervous System of Vertebrates" use the BNA, and the next edition of Gould's Dictionary, now in preparation, is to consider the BNA. The leading medical schools over the country are introducing the BNA in

the classes and I might add that one of our schools, the Los Angeles College of Osteopathy, is this year using the BNA.

It is interesting to note the more important general rules adopted by the BNA commission as it progressed in its work. It gives us an insight into their methods and by this we may profit. The more important of their general rules have been stated as follows:

"1. Each part shall have only one name.

2. Each term shall be in Latin and be philologically correct.

3. Each term shall be as short and simple as possible.

4. The terms shall be merely memory signs and need lay no claim to description or to speculative interpretation.

5. Related terms shall, as far as possible, be similar.—e. g., Femur, Arteria femoralis, Vena femoralis, Nervus femoralis.

6. Adjectives, in general, shall be arranged as opposites—e. g., dexter and sinister, major and minor, anterior and posterior, etc."

The birth of every science brings into existence a greater or less number of new terms. Osteopathy is no exception. Many of our terms are quite definite, while many more are otherwise; in many instances we use synonyms, while in other cases our terminology is quite barren. It is desirable to formulate our terminology in the best possible way, to have only as many terms as we need, with each a definite meaning of its own; to make them as short as possible, with permanent and scientific accuracy.

As we progress the necessity for some other terms may arise, but we may begin our work now and coordinate and formulate the terms we have need of today and lay the foundation for the present and future uniformity of our nomenclature.

Such work as we propose is necessary on account of the following considerations:

1. While we have generally understood each other in the past, a great many of our controversies among ourselves have grown out of different conceptions of our terms. With fixed terms and a definite meaning to each, our understanding of each other is improved.

2. Many without our ranks have held erroneous notions about us on account of some of our terms. A scientific vocabulary will dispel all such erroneous ideas which the public may have held concerning us besides it will give us a standing in the scientific world that we could not otherwise have.

3. We will avoid the difficulties into which an anatomy and other sciences have fallen as illustrated above.

4. Any scientific literature is lacking in accuracy which is devoid of technical terms.

5. Hence, a technical terminology will aid us in our scientific progress, for this ensures clear ideas. Such terms are, in a measure, land-marks showing what we have accomplished and pointing out definitely the problems before us.

I have written this article to call the attention of the profession to our work and our needs in this way and, at the same time, to answer the queries which have arisen in some minds. In all this work let me say that I am sure that I express the feelings of the committee when I say that we would gladly receive any suggestions from any one in the profession who may be interested and give serious consideration of the same. We desire all the help we can get in order to do the very best. The work is of no small consequence and it will require a vast amount of tedious and painstaking effort to accomplish the desired end.

LOWNDES BLDG.

Preparatory and Corrective Treatments

ORREN E. SMITH, D. O., INDIANAPOLIS, IND.

[Paper read before the Annual Meeting of the Indiana Osteopathic Society.]

Preparatory treatments consist largely of manipilation applied directly to local tissues, and have as their object the influence and control of local functions of the tissues to which they are applied. They are intended to influence function immediately, and temporarily,— to influence cells individually, instead of en masse.

By applying manipulation to a local area of pathological tissues a quicker response can be had in many cases, than if we had waited to make changes of structure which, as obstructions, are primarily the lesions which have caused the diseased area. This local application of manipulation is of advantage because *all cells* are vital, and can be stimulated mechanically. The protoplasm of a muscle cell is responsive to mechanical stimulus just as truly as the protoplasm of a nerve cell, although to a less degree. Hence local application of the mechanical stimulus calls forth a latent local energy within the diseased tissue which would not be aroused by a stimulus applied indirectly through a reflex arc of the nervous system. This latent energy in these pathological areas can be used to great advantage in hastening chemical reaction, creating heat, influencing cellular respiration, excretion, and all vital processes of the cells. This latent energy so released is a local product created for home consumption in the local area. To be able to influence a local area of pathological tissue definitely, as can be done by mechanical stimulation, is to have at one's command a valuable therapeutic agent. To be able to influence matabolism favorably in diseased tissue is no mean power when we come to deal with conditions which lie outside the self regulating power with which the organism is endowed. Many of the vital processes of cellular tissues are maintained by laws which regulate physical bodies, as elasticity, hydrostatics, pneumatics, capillary attractions, motion, etc., hence mechanical manipulation has a therapentic value from the physical standpoint as well as a vital influence upon cells to which it is applied. All this preparatory treatment is of course temporary in effect, but neverless immediate and direct. Here we seek to influence function directly. In accute diseases it is sometimes necessary to increase dormant functions at once. The amount of local vitality of each cell responds to a local stimulus long before the local area could be influenced automatically by adjusting the primary lesion.

Theory of Preparatory Treatments.

Preparatory treatments produce their effects mainly through local influence. They are artificial, as much as drugs, in that they do not make the organism self regulating, the fundamental difference between osteopathy and drugs. A drug will have to be repeated to insure a continuance of results. So will a preparatory treatment. The preparatory treatment is a means of stimulating already free and working reflex arcs. It does not open up old nerve pathways which have become functionless through obstruction. It is not corrective ; it aids function only temporarily. Any treatment which has to be taken continously to insure proper functioning is essentially artificial and therefore to be condemmed as an ultimate treatment. But that preparatory treatments are just as essential as corrective treatments is proven by the service they render in making corrective treatment possible. Many cases come to us where the lesions have been of so long standing, where the pathology of those lesions is such that no other

than preparatory treatment would then be of service to the case. The bony lesions cannot be connected at first, and it is fortunate for the case that we are not compelled to use radical treatment in the beginning.

Through the reflex arc of nerves the circulation can be directed to local areas by stimulating the sensory nerves in those areas. The impulses which are thus aroused at the peripheral end of the sensory nerve are carried back to the spinal cord and here through the spinal nerve cell transferred on to a motor pathway which conveys a motor impulse back to the periphery there to be used in muscular contraction, glandular secretion, or increase of blood mass etc.. etc. We know that this is true because it can be demonstrated to any ones satisfaction. What osteopathist is there who has not seen the tissues redden under manipulation—a crimson which defies even prejudice. If vaso motion can be so influenced, why not those other functions, secretion, contraction, etc., and all function depending on connecting fibres with the special cells of the cord.

By local manipulation then we can secure local results — motor, vasomotor, secretory, etc., and by virtue of this fact old lesions may be influenced directly and powerfully thus hastening recovery and shortening the course of treatment. No more effective agent can be used in breaking up old adhesions, in relaxing old contractures, and in rebuilding new tissues, than the blood stream. And with this power of directing the blood stream to local areas of pathological tissues we have a most potent means at our command of directing the reparative processes of the body. It is not only the structural tissues which may be influenced by local manipulations but functional life of organic parts. These can actually be made to increase their service to the organism both in quantity and quality.

By the word "preparatory" it may be inferred that such treatment refers to the first few treatments given a new patient. But that is erroneous. Preparatory treatments should be used throughout the course of treatment given a patient. Never lose sight of the fact that there must be corrective treatments that can only be successfully administered after getting ready for it by the use of preparatory treatment. If you ignore this planning of your work it may cost you the loss of the case — the loss will come if you make the correction without proper preparation of the lesions by a preparatory treatment; and second, it will come if you give preparatory treatment to the exclusion of corrective treatment, because the patient will not stay well after treatment is discontinued, and he will not return — neither will he send his friends to you, which is of more consequence to you. Apply preparatory treatment to all old adhesions as you go along and the older and tougher the adhesion, the oftener you should leave your compliments with it. I do not mean treat oftener, but at each treatment given do not fail to see that the oldest and worst places are given proper attention. Then at some future day when other less formidable lesions have been conquered and begin to give away, the worst lesions will not be far behind them in yielding.

Corrective Treatment.

Corrective treatments consist primarily of adjustment of structural tissues — bony tissue especially — and have as their objects the restoration of self-regulation to the organism.

The codfiguration of the chest walls, spinal arches, and pelvic cavity, is often changed materially through corrective treatments. In seeking to change contour of the bodily organism, treatment is directed to the more durable and unyielding tissues which make and maintain structural form. A pelvis tilted to one side does not make a satisfactory base upon which to rear a normal spinal column. If one side of the pelvis is higher than the

other a lateral curve in the spine will be created because the line of direction must fall within the base to maintain bodily equilibrium against the force of gravity.

Deflections of the spinal column from the normal position, whether from fault of the pelvis or from other causes, must be corrected if the organism is to retain its power of self-regulation. The contractures of muscular and ligamentous tissues, which nature is forced to maintain in order to throw the line of direction within the base in spinal deflections are a constant source of mechanical stimulation to terminal nerves distributed within them and are the causes creating a large number of reflex disorders. These contractured tissues obstruct circulation to their own cells and predisposing to a diseased condition, thereby deranging metabolism. In order to do away with the whole line of symptoms which arise out of such structural deflection, a corrective treatment administered faithfully to the resisting bony tissue will, in time, restore normal articulations between each bony part. Then the organism again becomes self-regulating because structural tissue is not encroaching on the more highly differentiated tissues which have to do with regulating organic functions.

In successfully using corrective treatment on long standing conditions, recourse must be had to a long distance vision of the case. In applying corrective treatment in such cases it is not expected to see favorable results at once. Many cases get worse for a time and unless the practitioner understands the cause of such adverse symtomatology and can explain it to the patient intelligently, the chances are that the patient will discontinue treatment. The purpose of corrective treatment is to ultimately secure self-regulation of the organism by adjusting the structure. The adjusting process is sometimes anything but pleasant. Patients ought to be made to understand this and the cause of it. Help your patient to get a long distance vision of his case just as you see it and this will simplify matters wonderfully, because you will thus secure his intelligent cooperation in carrying out that which you have in mind for him, i. e., the ultimate restoration of self-regulation of his bodily functions.

Theory of Corrective Treatment.

Bony tissue is the important supporting tissue which gives form and position to the body structure. It maintains position against gravity, thereby furnishing a possible pathway for fluid and pneumatic channels. Were it not for this resisting tissue the body would be a soft flexible mass of tissue incapable of combatting gravity, and unable to maintain a definite configuration. Different physical departments of the body would become merged into each other, and no fixed organic positions would be possible. Bony tissue determines position and outline of the physical being. But what significance has this physical contour of the body? What difference does it make whether one's chest is flat or round; whether one's spinal column is straight or curved; whether one's pelvis is tilted or level?

The significance is this, "That structure influences function." And structure has this influence over function by virtue of the fact that the protoplasm of every cell in the body is responsive to mechanical stimulus. Therefore, deviation of structure from its normal position perverts function by the encroaching of one tissue upon another. As bone is the hard tissue of the body, its displacement from position is of greatest effect in disturbing other tissues. Pressure of bony tissue on blood channels and nerve fibres always results in disturbance of their functioning.

Bony lesions disturb other tissues also because they lie in close relation to the origin of large nerve trunks and important sympathetic ganglia.

All spinal nerves emerge from the spinal canal between bony tissues, hence rotations and approximations of vertebrae effect these nerve trunks extensively. The sympathetic ganglia lie just internal to the heads of the ribs, hence costal lesions disturb directly the sympathetics.

Bony tissue, from its very nature, disturbs other more highly differentiated tissues than itself, by creating a mechanical stimulus. The fact that it lies adjacent to these highly sensitive tissues which are so closely related to the functioning of organic parts of the body is ample reason for special demand for its correct position. Blood vesels and nerve fibres are soft and are easily compressed by the hard bony tissue. Because nerve tissue is a highly differentiated tissue, and is especially susceptible to pressure stimulus, it is easily perverted in function itself, and because its own function is that of an executive tissue to other tissues of the body, any perverted functioning of this tissue is equivalent to a complete derangement of organic functions of the whole body.

While the law of differentiation of tissue in the body produces a keener appreciation of enviroment, hence a more highly developed being, this same law deprives the specialized tissue of its self protection and in so doing exposes it to greater danger. Nature has therefore made a special covering of bone for a large part of the nervous system in skull and spinal canal, and just as long as this special covering is protecting instead of injuring these masses of nerve fibres and cells it will be fulfilling the purpose nature designed it for. This protection is insured to the spinal cord and its nerve roots when the vertebrae are articulated properly and the spinal curves are maintained normally. The resistance which bony tissue of the spinal column offers to gravity is a resistance of as much service to softed tissues maintaining foramina for pathways of blood vessels and nerve tracts, as it is to the maintenance of physical contour as a whole. But the parts must be kept in position as nature has designed them, else they will obstruct, instead of maintain, channels and pathways for fluids and gases. Bony tissue is preeminently a structural tissue. Therefore if structure makes function, by all means should bony tissue — the most important of all supporting tissues — be adjusted to normal position.

Corrective treatments are more beneficial than preparatory treatments for two reasons. First, they remove obstructions or lesions more thoroughly, hence the results are more permanent. Second, they are less artificial, in that they restore to the organism its power of self regulation. To remove a lesion which is robbing the organism of its self-control is necessarily a permanent treatment. So long as the lesion does not recur the organism will maintain normal functions and processes. Often old lesions cannot be broken up by any other than good vigorous adjustment of structural tissues. These corrective treatments may, with advantage to the patient, be made vigorous enough to set up a mild inflammatory process in the seat of lesion. In these old lesions the pathological processes are such that new cells must largely take the place of old diseased cells, and we know of no agent as servicable as the blood stream for tearing down old and building in new tissue cells. Excess of blood to any tissue in the body hastens metabolism in that it increases heat, hastens chemical reaction, and provides matter from which to construct tissue cells. This warm increased blood stream applied for a brief period to old adhesions is most advantageous. This vigorous treatment, though, is a dangerous agent in the hands of those who are careless and thoughtless in its use. Like any sharp tool, it may be used to abuse. Do not use it without discrimination. It may cost you the loss of your reputation. On the other hand, do not fail to use it when indicated as it will be the means in your hands of curing cases that others have failed to

cure. A little thought at the right time will pay you. Vigorous corrective treatment often affects the organism profoundly. Sometimes the reaction does not come for two, three or even four days after the treatment. These effects may be in the way of soreness in the structural tissues of the body or organic disturbances may be pronounced. When they occur, time should be given for these adverse symptoms to abate before another such treatment is given. Here, preparatory treatment comes into service. The milder relaxing, stimulating treatment at these times is borne very gratefully by the patient, and the old soreness still lingering in the tissues from the former vigorous treatment will yield readily to the milder form of treatment.

Do not become panic stricken yourself at these adverse results. Remember the correction of structural defects is, by the very nature of vital tissues, likely to cause disturbance in function where changes in structnre are produced. If structure makes function, it ought to be less strange that structure will modify function when structure is being changed. So fortify your patient also against this result by telling him that such a result may happen.

Sometimes corrective treatment will for a time produce results contrary to those expected, viz: in cases of constipation the treatment may make the constipation worse, or if palpitation of the heart, the heart may be very irregular and distressing. These results are only temporary and will in time give way to normal functioning. They are of service, however, to us, warning us to desist in the more vigorous corrective treatments for a time. Lesions corrected too rapidly cause a disturbance in function because the vital properties of the tissues are unable to adjust themselves to their new environment as fast as it has been created for them by change in structure. At such times all that is needed is a sufficient amount of time to elapse for the vital processes of cellular life to become adjusted to the new environment. Many of our patients are anything put patient, and it requires real diplomacy to pilot them through these rapids of discontent out into the broader, deeper, slower channels of safety and contentment.

In conclusion it may be said that neither preparatory nor corrective treatments can be used, the one to the exclusion of the other, but that the ideal treatment is the combined use of the two, in which one is made to blend into the other. Each has its special value as a therapeutic agent, and should be given a corresponding consideration. Corrective treatments are perhaps more difficult to administer successfully and require more thought and good judgment in their use. But just in proportion to their difficulty of administration over preparatory treatments, is their value to the profession in elevating the science of osteopathy over and above the work of a masseur. Anybody can rub a patient, put it is not every one who can give a good corrective osteopathic treatment.

TRACTION TERMINAL BLDG.

More Osteopaths Wanted in Oregon

The semi-annual examinations given by the Board of Medical Examiners of the State of Oregon will be held July 7, 8 and 9 in Portland. Examination will be required in the following subjects: Anatomy, physiology, chemistry, histology, pathology, gynecology, obstetrics, theory of osteopathy and practice of osteopathy. For further information address F. E. Moore, D. O., La Grande, Oregon, Osteopathic Member of the Board of Medical Examiners of the State of Oregon.

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The Endowment Fund and Existing Colleges

The communication from C. M. T. Hulett in last month's JOURNAL is a convincing document and should stop all opposition to the endowment fund from the standpoint of ignorance as to its object. That point settled, it would seem to the interested observer that this movement has even a broader significance than the founding of an institution of research or one for advanced study. It means the establishing of a science on a foundation of permanency by its adherents, irrespective of Alma Mater, if it does not, indeed, mean *the establishing of the contention that we have a science to perpetuate.* It means also that osteopathy is to live as a separate and not as a collateral branch of therapeutics. All this is so plain, so patent, that there is no chance for argument, and selfish motives have no place in this movement to build for posterity.

It seems that some of the colleges look askance at the movement, fearing an attempt to usurp their prerogative or in plain words to compete in teaching. The folly of this fear has already been pointed out and surely any one who

knows the meaning of the words Post-Graduate need not go astray. On the other hand the research feature is still in such shape that it would seem that the colleges could be used; their interest enlisted; progress shown and subscribers feel that their money was being wisely and promptly used.

Everyone knows that the torch of research ignited by McConnell is the cause of the blaze which lights this movement and illuminates the way. The enthusiasm at Put-in-Bay was but the reflection of this fire kindled at Denver. This being true the cry is for more work of the kind, hence the starting of the endowment fund. And how is this demand to be satisfied? Scientists come high, laboratories are expensive and the combination of an osteopathic scientist with an exclusive laboratory is far out of the reach of the fund at present. On the other hand there are men and women now in college work who are equipped to carry on such work under direction of the research committee of the A. O. A. or the Council of the fund. Let these bodies find out what colleges have the equipment of laboratory and of men for such work and let them outline experiments which are to be undertaken by the colleges extending over months or even years' reports being made from time to time, the property of the association or fund for all of which they are to receive a fixed sum for labor and laboratory. Let this test the true scientific spirit which should pervade our institution and also show them that this movement has but one end in view—mutual advancement.

Men must be developed for this work and only those in whom the Osteopathic Idea is deeply rooted can be selected. The world is full of investigators but they will not do without this requisite developed in its fullness. He must not be a doubter trying to be convinced, *he must know*. The time has passed when we can ask or allow our delvers after truth to give of their time and money for the benefit of all. What can only be done by the few must be paid for by the many. While there seems to be serious doubts in the minds of some as to the wisdom of attempting to teach at this early period there can be none at starting the research work and a plan as outlined can be put into action at once even with the limited income available from the fund while any other undertaking requiring much outlay will make it remote. It is safe to say that not a college which has the necessary equipment will fail to meet the proposal half way and in a spirit of liberality. Let's fill the War Chest. The uses to which its contents could be put are many. Uncertainty rules the age and when some upheaval beyond prophecy comes we will be prepared and mayhap in the wisdom of the powers this fund may save from the rocks the newly launched ship, osteopathy.

CHARLES C. TEALL, D. O.

The Prize Essay Contest

The contest should arouse considerable interest. It is no small thing to win in a contest on contributing something to the scientific side of the system, and the prize—fifty dollars—is worth the effort. The essays should be sent to the Chairman of the Committee on Education, Dr. S. A. Ellis, 687 Boylston St., Boston, Mass.

A National Legislative Body

The outline as given by Dr. Frank R. Heine in the last A. O. A. JOURNAL for the creation and organization of a National Legislative Body is certainly a movement in the right direction, and is one that should receive the enthusiastic support of every osteopath of all states, whether members of the A. O. A. or not. The right kind of an organization of this character will prove a power for lasting good to osteopathy, and if conducted as it should be will wield an influence upon all medical legislation that will redound to our glory, and the lasting good of humanity. Every state in the Union should be represented at Kirksville. While the time is too short to create the active elective bodies in each state, yet the presidents of the several state associations can appoint some good live man or woman to represent them at that meeting, and in this way get the good work started. It is very essential that this movement should be inaugurated at once, as this is an active legislative year, for more than three-fourths of all the states hold sessions some time during the next twelve months. These committees should be chosen in all states, no matter whether you have a good law, a poor one or none at all. We have reached the time and the place where our greatest vigilance is of the most vital importance, and in no way can we do such effective work as by a united, conscientious, energetic effort along uniform legislative lines in all the states.

These committees should be composed of our most active, live, wide-awake men and women in all states, and they should keep in close touch with every bill to regulate the practice of medicine in all its branches, whether in our favor or not, and they should ever be ready to lend their influence to pass all bills that mean the public good, and to kill all unnecessary legislation or laws that tend to strengthen the present medical monopoly. This kind of an organization can and will wield a wonderful influence for good if but carried out as planned by Dr. Heine. Of course, his is but a brief outline of the original plan, but it is certainly a good one, and the details and plans can be worked out year by year, or as needs point the way. A united effort along uniform lines are the needs of the hour, and nothing should be left undone that is possible to accomplish to carry out this plan, and give to our profession a compact harmonious, well organized body that will work as a unit for uniform good laws for osteopathy. I sincerely hope that every state in the union will be represented at Kirksville. This movement is, in my judgment, one of the most important if not *the* most important ever inaugurated. Let us all give Dr. Heine our united support.

A. G. HILDRETH, D. O.

On Intolerance

The following editorial appears in the *Metaphysical Magazine* of New York City for May 14:

ANOTHER ART OF HEALING.

While osteopathy is forging its way to a place in the favored circle, despite the united efforts of the three united competitors to keep it under legislative ban, its rival, the "Chiropractic," is also demanding the recognition of its rights. At a meeting of the Commissioners of the District of Columbia, some

weeks ago, the friends of this method were present in full force. Doctor Arnold, a lady practitioner, was introduced by ex-Commissioner T. V. Powderly, of the Knights of Labor, and made an eloquent defense, and appeal against the Medical Trust. Congressman Livingstone also advocated the right to practice. The room was thronged with patients, all testifying to the benefit of the new procedures, and the Champions of Medical Monopoly for once could not move a tongue.

A writer in Lacon remarks that individuals who entertain similar general belief, but who disagree on some point, are often more bitterly hostile to one another than they are to others who are alike opposed to them both. These little schools, the Chiropractors and Osteopaths, are illustrations.

Osteopathy has no rival. It concerns itself alone with suffering and disease. If osteopaths allow themselves to be placed in the position of fighting chiropractic or any other system so long as it makes no claims to be ours they make a vital mistake. It is the opinion of THE JOURNAL we are at all times justified in seeing that none claims to be an osteopath if he is not, or claims to practice osteopathy if he is not qualified to do it, we are justified, in other words, in guarding jealously the good name of our own profession, but there our concern ceases, and our interest and activities should cease likewise. It's no affair of ours who practices or what he practices provided he does not hold it out to be our practice. If the public wants him they have a right to him. We have won practically every battle on that principle of the right of the public to choose its own physician and school of practice, and it ill-becomes us to so soon forget that good rule, and go out building little Chinese walls for ourselves. We shall do ourselves infinite harm besides showing the narrowness and the bigotry that has been shown towards us, and inconsistency to boot. The honorable, consistent thing for our profession to do is to attend strictly to its own business and attend to that well.

In full harmony with the above, is a plea for tolerance and consideration from L. S. Oppenheimer, M. D., in the *New York Medical Journal* May 16. He says in part: "Now there must be a germ of truth in every *ism*. Those extraordinary fads are based on some sound physiological or pathological principle. We are not defeating them by derision, we will not destroy them by persecution. How few of us really know any more about them than the most ignorant devotees that worship at their shrines.

Would it not be more effective for our colleges to devote a few hours each semester to an intelligent, dispassionate study of each of them, free from ridicule or levity? Indeed, our illiberalism in medicine smacks strongly of religious bigotry and intolerance."

Gamaliel, the teacher among the Hebrews, delivered himself of a principle as applicable to therapeutics as to the new religion he was besought to oppose: Let it alone; if there is nothing in it, it will come to naught without opposition. If it contains Truth, we do not want to be found fighting against Truth. The old Scotchman said: Orthodoxy is my "doxy;" Heterodoxy is your "doxy." So in systems of therapeutics—We are fakes to the schools existing when we appeared; all who come after us, are fakes to us. There

is no consistency or charity in this. If we demand the right to exist ourselves, we must grant the right to other schools. We are not the judges of their fitness to exist. Leave that to the public and themselves. Let us see to it that each of us is worthy of existing. The end of the appearing of new schools of therapeutics is not yet.

The Necessity of Development

Several points touched upon in the editorial from Dr. Teall printed in this issue may be developed more fully with profit.

The bald interrogation arises to every thoughtful practitioner—Is this movement of ours to add anything to science, is it going to discover new principles and establish new truths, or are we proposing, sucker-like, with open mouths to await any good thing that other investigators may let fall? To the mind of the scientific world we may not yet have established the scientific side of osteopathy, whatever it may think of the results the practice has obtained. Furthermore, we shall not establish this scientific fact in the field of practice only, nor by haphazard methods of the general practitioner, but only by years of patient investigation and experimentation on the part of those familiar with the principles involved and having time and turn for this exacting work. But grant that our claim to scientific recognition is established or will be, what further will we do?

A well known physician recently said: "Homeopathy failed because it never made a contribution to science. It took existing text books and methods, deviating only in materia medica." Are we proposing to substitute manipulation for drugs as our only contribution, and in a generation or two follow homeopathy to the scrap-heap? Survival is a matter of aggression. If as soon as we secure enactments in the several states securing us that are in and leaving it impossible for those who are not in to come in, we sit and say: "Soul, thou hast about what thou hast been looking for, thou hast a sure thing for many years, take thine ease," the feet of the agencies that are returning from the burial of homeopathy will be heard at the door ready to bear osteopathy away also. History has a way of repeating its punishments on those who do not learn its lessons.

A little thought on the nature of Post-graduate schools ought to clear up the views. These are not operated by the colleges, but by the profession for the practitioners and conducted by a few pre-eminently fitted for the several lines undertaken. A college is supposed to give those who are its students all the advantages it has to offer. How queer it would seem for a college to say "Come to us for three or four years and we will equip you for your life-work, we will give you a diploma of graduation" and then have it tell you, "we have much information yet we have not given you, pay another fee, come another year and take a post-graduate."

Understand, so far as this refers to our schools, it is distinctly for the future. When we are just a year or two away from the two year course, and when all schools recognize that practicioners should have three years' training,

there is nothing incongruous about the schools bringing those who want it up to the present acknowledged standard; but five or ten years hence when the same conditions no longer exist, what excuse can the schools have for accepting tuition for a course to fit one for a professional career, and then say, "we have much more yet that we have not given you, put up another fee and get that, a post-graduate." The osteopath will need, and will be entitled to receive the best course that can be given him and the regular course in the schools should do this. If later he wants to specialize along some line or do any practical original work for himself he will need a post-graduate school to direct him and furnish the equipment. This need the profession, the practitioners and their friends, must supply. Almost $10,000 has been paid into the fund. This amount should be added to, but even if the income from this can be set to work filling real needs and competing with none, as is never intended it shall do, it will increase the interest with those who have given and with those who will give when they see that the plan is feasible.

The suggestion made by Dr. Teall that the schools, if they wish it and are prepared with the necessary equipment, at first be given an opportunity to do this work and their investigators receive compensation under the fund, appeals to one as a proper one. This would make it possible for all of the present meager returns from the fund to go for compensation and not be forced to be used for apparatus. The investigators should have the compensation. The profession intends that they shall be paid, and as soon as the work is fairly started the funds will not be wanting.

The arrangement whereby the American School gives the use of its equipment for the work to be undertaken by Drs. McConnell and Burns at Kirksville after the A. O. A. assembly, is meeting the situation fairly. These two are entirely competent to start this original work. While only small classes can be accommodated it is hoped that there are those among the profession who will grasp this first opportunity to learn the technique of this work and will, with this start, become interested in this experimental work and thereafter be prepared to do it for their own satisfaction and for the purpose of adding to our knowledge of body processes. Of course in so short a time, this developing of workers is about all that can be accmplished, but this is the first thing to be accomplished—to enlist workers in this field and help them prepare for their work. Those interested should write at once to Dr. E. R. Booth, Traction Bldg., Cincinnati, Ohio.

The attention of every reader of THE JOURNAL is directed to the article printed in this issue on Tumors by Dr. Littlejohn. This note is made because the article is long—longer indeed than most of us would like to read at one time but the article is so brim full of osteopathy that any practitioner who reads a few pages of it will read it to the end.

It matters not what may be the reader's attitude towards the treatment of malignant growths, in this article he will see the pathology of neoplasms, and the relation of the lesion to lowered vitality of the system has never been stated more clearly.

THE JOURNAL is glad to present to its readers this valuable paper which deserves to be read largely and be preserved.

PROGRAM.

Annual Meeting of the American Osteopathic Association, Kirksville, Mo. August 3-8, 1908.

Monday, August 3

10:00—10:30—Opening Exercises.
Invocation.
Address of Welcome—A. T. Still.
Response.
10:30—President's Address—Dr. F. E. Moore.
11:30—Paper and Demonstration—Corea—Dr. A. H. Zealy.
12:15—Demonstration and Discussion—Appendicitis—Dr. W. J. Conner.

RECESS.

2:00—Open Parliament—Osteopathy in Acute Practice—Dr. Wm. Horace Ivie.
8:00—Preliminary Meeting of M. V. O. A., the Reunion of Fraternal Societies,

TUESDAY, AUGUST 4.

9:30—Paper and Demonstration—Dr. Carl P. McConnell. Some Disabilities of the Foot: (a) Flat Foot; (b) Contracted Foot; (c) Anterior Metatarsalgia.

Section I.

11:30—1:00—Practice.
Diagnosis and Treatment of Thoracic Conditions—Dr. D. S. Pennock.
The Fifth Cranial Nerve—Dr. W. R. Laughlin.

Section II.

Presided over by Dr. Ada A. Achorn.
Gynecology and Obstetrics:
Paper and Demonstration—Dr. Ellen B. Ligon.
Paper and Demonstration—Dr. Alice P. Shibley.

RECESS.

2:00—Paper—The Relationship of the Osteopathic Physician to Public Health, Dr. C. A. Whiting.
Discussion.
2:30—Open Parliament.
8:00—Regular Meeting of the M. V. O. A.

WEDNESDAY, AUGUST 5.

9:30—11:00—Business Meeting.
11:00—Demonstration—Technique to Spinal Lesions—Dr. H. W. Forbes.
12:30—Pulmonary Tuberculosis and Its Control—Dr. Wm. R. Pike.

RECESS.

2:00—Open Parliament—Conducted by Dr. George Laughlin.
3:30—Demonstrations and Clinics at Hospital.

EVENING.

Alumni and Class Reunions, etc.

THURSDAY, AUGUST 6—OSTEOPATHY DAY.

9:30—Paper—Photography in Diagnosis—Dr. C. E. Fleck.
10:15—Demonstration of Technique—Dr. Ernest Sisson.
11:00—Exercises to Commemorate the Birthday of Dr. A. T. Still.
Address by Mayor of Kirksville, Mr. H. Selby.
Paper—Dr. Still as a Benefactor—Dr. S. T. Lyne.
Address—Dr. A. G. Hildreth, Pres. M. V. O. A.
(The afternoon and evening will be devoted to celebration as planned by the Local Committee).

FRIDAY, AUGUST 7.

9:30—Paper and Demonstration—Dr. George Still.

Section I.

11:00—Practice:
Demonstration—Dr. G. S. Hoisington.
Demonstration—Dr. F. F. Jones.
Nose and Throat—Osteopathic Technic—C. C. Reid.

Section II.

Gynecology and Obstetrics:
Address—Specific Infection; Its Effect and Treatment, Dr. M. E. Clark.
Demonstration—Dr. Ella D. Still.

RECESS.

2:00—Election of Officers.
2:30—Paper—Osteopathic Methods in Inflammations and Post-Operative Conditions—Dr. F. P. Young.
4:00—Demonstration and Clinics at Hospital.

STRAIGHT VERSUS MEDICO-OSTEOPATHS.

Regarding the extended, and at times, acriminous discussion of this perplexing problem a word may, perhaps, be opportunely said along the lines of general principles rather than of partisan treatment. The individual point of view is largely determined by past thought-habits. In the formation of new-thought habits there is, too rarely, an intelligent stock-taking of one's mental assets and liabilities with the object of drawing up a plain, clear, honest balance sheet of one's intellectual views and beliefs. Such a periodical balancing of mental accounts would give definiteness and accuracy to one's later thinking as well as effectiveness and consistency to the expression of his thought-consistency, I mean, in fundamentals rather than in minute details.

The differences of opinion that exist among ostepoaths are not peculiar to them. Sectarians of all schools whether of philosophy, religion, ethics, art, healing, education or any other activity of large and profound significance, have always varied quite as widely in the minor elements, the less essential features of their beliefs, while being closely united on the fundamentals. It is the undue emphasis placed on the need of absolute unanimity in non-essentials that is almost invariably the basis of friction. To quote Prof. William James: "The differences that exist among men are largely matters of definition." While these differences of opinion lead to a good deal of discomfort, especially if too dogmatically held and too arbitrarily expressed, yet they seem to be essential to any real progress. No man (and the same is true of organizations) grows without changing his mind. If the change is a uniformly progressive one so much the better, although this is too much to hope or expect. "Tendency to revert to original types" is a law of evolution. It is the conservative force in man as it is elsewhere in nature.

It is also to be kept clearly in mind that the constant discussion of these minor issues gives them an apparent importance of which they are in no wise worthy. Such discussion tends to befog, to subordinate, the larger and really more important phases of the movement. They are destructive rather than constructive in their nature. In the long run, the worst foe of any movement is narrowness, not breadth. The ability to see a subject in all its bearings is the only way to form a just estimate of its character and its worth. The affirmative attitude is the wise one. The attempt to get the other person's point of view and the reasons why it appeals to him is the only way of forming a true judgment of him or his acts.

All the truth is not wrapped up in one package. Emerson says, "We find it difficult to state one truth with emphasis without contradicting some other truth." It is well to keep these facts in mind in our consideration of the inner relations of osteopathy as well as its relations to other systems of healing and to the general field of science. The larger the truth the more difficult it is to define it, and the more danger there is of shutting out something of importance when we undertake to build impervious walls around it. Delimitations in science are more often matters of convenience than of fact. A science, if it is vital, must have room to grow in; if it is worthy to survive it will constantly infringe and draw upon and overgrow and spread beyond its fences.

If two persons disagree it does not necessarily follow that one is wholly right and the other wholly wrong. Indeed, such is almost never the case. But, ordinarily, the mind if each one is so firmly focussed on his own idea as to preclude the possibility of his catching so much as a glimpse of the view-point of the other. We ought to lift ourselves above that level, not by pulling futilly on our own boot straps, but by firmly grasping the extended hand of the other even though he may seem to us to be as "deep in the mud as we are in the mire." Each may serve to help the other out of his difficulty. There is little or no convincing power in argument. Demonstration carries conviction.

It is related of Rev. Robert Collyer that, when he went to Chicago to settle, the Trinitarian clergymen greeted him very cordially. One of them met him one day and after a hearty greeting said: "Mr. Collyer, I want you to come over some evening and sit with me by the open fire for a good, comfortable chat so that we can find out wherein we differ." "I will come with pleasure," replied Mr. Collyer, "but let us devote our evening to finding out wherein we agree." Points of similarity are now used by scientists as a basis for classification instead of points of difference. "What we seek we find." Every osteopath, if he cherishes illusions as the result of his past training and experience will inevitably be "hoist by his own petard," in time, or to put it even more strongly, "be hanged by his own rope if you give him enough of it." Equally true will this be of him who develops new illusions which prove not to be demonstrable in practice. We can afford to wait a little, patiently and hopefully, before confining ourselves irre-

vocably within too narrow borders. If the walls press too closely they may rob us of a large measure of our freedom; they may form a prison instead of a protection.

No two disciples of any great teacher ever interpret his teachings in exactly the same way, especially if those teachings are couched in language which is often figurative and at all times somewhat vague. But, as time goes on, the general concensus of opinion of those who practice the art or teach the science becomes so wrought into the fabric of a structure as to make it fairly represent the name by which it is known. So it will be with osteopathy as it has been with every other science and every other art.

Osteopathy has been forced to prove its validity in the crucible of doubt and crass opposition and well for it that it has been subjected to this crucial ordeal. It has been purified by fire. The only dross remaining is that which clings to the garments of some of those who stood by and saw the proving process in operation. Seeing the dross they never overlook the fact that it adheres to them rather than inheres in the system. Many osteopaths find their confidence in their chosen system incomplete because of their superficial knowledge of the full contents of that system. Others learn, sooner or later, that confidence in a system is a poor substitute for adequate equipment.

The best corrective for both these classes is contact with the masters in the profession. To one class such association will prove that the system includes both methods and means of which the members of that class were in total ignorance, to the other class of it will show how immense is the knowledge, both of the science and the art, which they have not yet acquired. Of all the foes of our system the very worst are the self-confident incompetents. Next to them come the self-appointed conservators of the truth. The future of osteopathy rests not in the hands of these but of the masters, through the influence which they will be able to exert on the rank and file of the profession. The clinical and didactic work of some of these masters is a revelation even to many experienced and successful practitioners.

The danger to osteopathy, if such there be, is in the limitations of many of its practitioners, rather than in any inherent weakness in its philosophy. It lies within the ranks rather than outside of them. No one person, however skilled he may be, has yet sounded the depths of the science, nor will he for years to come. There is some evidence of the presence of a topic of discussion, but the best antitoxin is found in the discussion of the large and really important principles of the science, together with a conscientious and intelligent application of these principles in behalf of humanity.

The great hope of our profession lies partly in the more complete and practical education of present practitioners and future graduates; partly in the hands and minds of those whose genius in developing and whose skill in imparting knowledge is placed at the disposal of the less gifted in order that the great average may be forced to higher and higher levels, but mostly will it be found in cordial cooperation and sympathy, in mutual helpfulness, in sibordinating personality to the good of the profession, in big-hearted and optimistic tolerance and the realization that each and every member of the fraternity has the same right to his opinion and should have the same freedom in its expression that we demand for ourselves.

Wellesley Hills, Mass. WARREN A. RODMAN, D. O.

Correspondence.

DR. J. M. TAYLOR AGAIN.

The Most Useful Specialty in Medicine.—J. M. Taylor says that every person, young and old, is capable of a notable increase in vital status by a revision of modes of life. This is particularly demonstrable as middle age approaches and tissue elasticity subsides. On this basis there would seem to be, he says, ample work in any community for specialization in systematic amplification of efficiency. One difficulty is distrust and jealousy which discourage frank consultation and co-operation and another is the supineness of the profession in omitting to compel recognition of the high pencuniary value of expert advice in the conduct of life. In the process of enhancing vital powers there are diverse, well known, excellent resources, often wisely employed. These embrace such familiar measures as regulation of life on a hygienic basis, including all those factors which contribute to physical economies, to normal activities, as by open air life, dietic care, correction of functional or constitutional errors by well chosen drugs and the like. These are efficacious in proportion to, (1), the

judgment and care exercised by the adviser in searching out causes, and, (2), to the degree of co-operation supplied by the individual. Success depends upon a thorough estimation of the specific needs of each person. The main principle is the importance of securing greater elasticity of the tissues and promptitude in the reactive times between controlling centers and outlying motor parts. Full organic competence is not sustainable unless the supporting structures are maintained in normal degrees of mobility. By securing greater elasticity in the less used structures we can accomplish improvements in many unexpected directions, among the chief of which is the securing of harmonious interactions through systematic motor stimulations. The author lays special stress on the necessity of in creasing the activities of the paravertebral tissues. By encouraging activities in these paravertebral muscles, and securing elasticity in the ligaments in the back, there follows a corresponding and correlated enhancement of all organic activities. This can readily be accomplished by systematic posturings, torsions, bending, etc., alone or along with extensions of the limbs and systematic forces respiratory acts, whereby the junctures of the ribs and backbone are made more mobile. The key, erectness, hence of skeletal efficiency and visceral interrelationship with the maintenance of organic competency lies in keeping of the thorax in a normal posture.

To secure this thoracic normality requires intelligent motor education. By the simple device of training a patient to clasp the hands behind, pulling apart strongly and pushing the arms forcefully down, at the same time thrusting up the chin vertically, these contractured tissues are forcefully stretched, perhaps for the first time in years. This act repeated, and with steady increments of force, widens the front of the thorax educates the down-pull of the erector spinae muscles, and overcomes the common and damaging habit of stooping. Stooping always induces undue compression of the larger viscera.

Philadelphia, Pa. J. CORWIN HOWELL, D. O.

(Medical Record of May 2, 1908, by William Wood & Co., New York).

On April 15 the Court of Appeals of Georgia handed down a decision that Osteopathy is not the practice of medicine. The case came up from Fitzgerald, Ga., where a divine healer had been arrested on complaint of a medical doctor. The divine healer was acquitted by the Justice as not practicing medicine, but he did not show the spirit of his profession in that he sought vengeance on the M. D. by suing him for damages. The M. D., through his lawyer, demurred to the case and this brought the question to the Court of Appeals to decide the question as to what the practice of medicine is in Georgia.

I chanced to have the Chief Justice of the court as a patient at the time. He told me promptly that he had a case that involved our standing legally in the State. He talked freely with me and asked questions concerning our cause. I did not fail under the circumstances to avail myself of the opportunity afforder to plead our cause before this high tribunal. I referred him to decisions in the States of Mississippi, North Carolina, Ohio and Kentucky. We discussed the situation from day to day for about two weeks during the hours of his treatment. I will not deny that his treatment was largely enforced by an "adjunct" suggestion. This is my first case before the Supreme court. I do not know whether the legal fraternity will have me up for practicing without a license or not. At any rate, the Judge wrote the decision and declared that osteopathy and divine healing and Christian Science, not using drugs, were not the practice of medicine. Having placed us with divine healing and Christian Science, he then lifted us out of such associations by suggesting that, inasmuch as osteopathy is a learned profession, based upon scientific principles and praised by men of prominence everywhere, a wise legislature would give it suitable recognition before the law along with other learned professions.

So much for the treatment by suggestion. Will the stoutest lesion osteopath object to the use of the "adjunct" in this instance?

Atlanta, Ga. M. C. HARDIN, D. O.

TESTING THE LAW IN NEW YORK.

Judge Dickey of the Supreme Court of Kings county, New York, on May 11 handed down a decision confirming the contention of the osteopaths that under the statute passed by the legislature one year ago they are physicians in every sense of the word except that they are not allowed to use internal medicines or operative surgery. The case came up through the Department of Health of Brooklyn, N. Y., refusing to accept the death certificate from Dr. C. F. Bandel, who then applied for a mandamus compelling the department to accept such

certificate. The Justice in rendering the opinion gave a very broad decision, using these words: "It is clear to my mind that the osteopaths are physicians and practice medicine, except for the restriction put upon them by statute prohibiting them from administering drugs and performing surgery with instruments they are entitled to rights and subject to all the penalties of other physicians and medical practitioners." Martin Littleton, who represented the State Society of New York for two years, appeared for the osteopaths and the Corporation Counsel was assisted by the attorney of the Medical Society!

Justice Dickey granted the mandamus with $50 costs. On May 23 the same Justice granted the Health Department right to appeal and this acts as a stay to the mandamus. It will perhaps be two or three months before the Court of Appeals can settle the point.

The press dispatches tell of "Edward T. Curran being retained by the osteopaths of the State to test the constitutionality of the medical act." Curran, who has a medical degree himself, is thus quoted: "There are 700 osteopaths in this State and 90 per cent. of them will not be allowed to practice. The 10 per cent. that can practice without legal interference got degrees from certain colleges. Why the 90 per cent. can't practice I cannot understand. A test case will be made at once, and we shall win. The whole medical act, some of the provisions of which keep 90 per cent. of the osteopaths of this State from practicing, is unconstitutional."

About one-half the number Curran speaks of as being in the State are registered under the law he proposed to break. This move, of course, comes from the irregular practitioners who have not been able to qualify with the Board of Regents. The profession in the State will watch this with more interest than concern.

SOUTH CAROLINA.

The recent session of the legislature in South Carolina passed a revision of the existing medical statute in which the following provision is made: "The State Board of Medical Examiners shall issue license to osteopaths and homeopaths specifically for the purpose of practicing osteopathy or homeopathy, respectively, when the applicant presents a diploma from a duly authorized school of osteopathy or homeopathy and satisfactorily passes examination before the State Board of Medical Examiners on all regular branches upon which applicants for medicine are examined, except materia medica and therapeutics, major surgery and the practice of medicine; provided further, that osteopaths and homeopaths now holding licenses from the State Board of Medical Examiners shall be exempt from the provisions of this act."

Union, S. C. MARY LYLES-SIMS, D. O.

State and Local Societies

TEXAS.

The eighth annual meeting of the Texas Osteopathic Association was held at Galveston, Texas, Cathedral Hall, May 22 and 23.

Morning Session, May 22.

Address of Welcome by Mayor H. A. Landes.
Response, Dr. N. R. Lynd.
Annual Address of the President, Dr. A. P. Terrell.
Dr. A. A. Speegle, paper, Hysteria.
Discussion, led by Dr. H. B. Mason.

Afternoon Session.

Dr. George A. Wells, paper, Mental Abnormalities.
Discussion, led by Dr. A. D. Ray.
Dr. D. S. Harris, paper, Septicemia.
Discussion, led by Dr. Julia May Sarratt.
Clinic.

Morning Session, May 23.

Dr. Robert P. Coulter, paper, Successes and Failures in Osteopathy.
Discussion, led by Dr. T. L. Ray.
Dr. W. E. Noonan, Demonstration on Lesions of Dorsal Spine; Cause, Effect and Reduction.
Clinic.

Afternoon Session.

Dr. Paul M. Peck, Demonstration of Lesions of Pelvic Articulations; Cause, Effect and Reduction.

Report of Board of Trustees.

Report on Medical Examining Board by Dr. J. F. Bailey.

R. R. NORWOOD, D. O., Secretary.

KANSAS.

The osteopaths of southern Kansas held a meeting in Wichata May 6, at the offices of Doctor Stanley. The meeting was given over to Dr. Ella D. Still of Des Moines, who lectured, quizzed and conducted clinics along gynecological lines. The meeting was well attended. Dr. W. M. Coons of Haddington, president, and Dr. J. W. Shearer of Abilene, secretary, were the officers in charge of the meeting.

The election of officers at the close of the session resulted as follows: President, Dr. D. B. Fordyce, Ellsworth; vice-president, Dr. Florence Barrows; secretary-treasurer, Dr. George Shoemaker, Wichata.

MISSOURI-KANSAS SOCIETY.

The members of this organization met at the office of Dr. L. D. Gass, Joplin, April 27. The constitution was presented by Dr. M. S. Slaughter and adopted, and signed by the charter members, all of whom were present, as follows: Drs. O. M. Strickland, J. L. Boswell, Martha Cox, Minerva Kenega and L. D. Gass, Joplin; Truman and Frances Wolf and Frances Harris, Carthage; Drs. C. E. Willis and Josephine Trabue, Pittsburg, Kansas; Drs. Adele Doane, Parsons; H. M. Reed and Bosa Thomas, Columbus, and Drs. F. M. and Florence Geeslin, Lamar. Short papers were presented by Drs. Florence Geeslin and Josephine Trabue, which were fully discussed. The society will meet monthly.

INDIANA.

The Indiana Osteopathic Society held its semi-annual meeting in Indianapolis May 6. Dr. George A. Still of Kirksville was the guest of honor and spoke on "Pathology and Symptomatology from the Osteopathic Viewpoint." Dr. M. E. Clark spoke on "Dysmenorrhea" and Dr. Orrin E. Smith read a paper, "Preparatory and Corrective Treatment."

The officers of the association are: President, Dr. E. C. Crow, Elkhart; vice-president, Dr. J. H. Baughman, Connorsville; secretary, Dr. K. T. Vyberburg, Lafayette; treasurer, Dr. Kate Williams, Indianapolis.

THIRD DISTRICT—IOWA.

The osteopaths of this district met at Fairfield, Iowa, May 15, in the library hall. Dr. W. O. Pool, Fairfield, presided. Officers for the ensuing year were elected: President, Dr. J. S. Baughman, Burlington; vice-president, Dr. J. A. Dillon, Centerville; secretary, Dr. E. M. Thompson, Ottumwa. Dr. G. G. Graham read a paper on Typhoid and Dr. J. A. Dillon on Colon. The next meeting will be held in Burlington in November.

CALIFORNIA.

The Sacramento Valley Association held its quarterly meeting with Drs. Slater of Marysville, May 4. The program consisted of clinic Anterior Polio Myelitis, Dr. W. D. Slater; Innominate Lesions, Dr. L. R. Daniel, Sacramento; Demonstration of Technique, Dr. A. R. Waters, Chico. The program was followed by a dinner tendered the guests by Drs. Slater.

IOWA.

The tenth annual meeting of the Iowa Osteopathic Association was held at Still college, Des Moines, May 21-22. Dr. J. R. Bullard of Marshalltown presided Addresses were made by Drs. C. E. Thompson, F. P. Young, Des Moines; Jessie L. Catlow of Boone, A. C. Brown, F. P. St. Clair and others.

RHODE ISLAND.

The measure recently introduced in the legislature of the State to exclude all practitioners of every school except those recognized by the Health Board has been killed for the present session at least.

PHILADELPHIA.

The regular monthly meeting of the Philadelphia Ostopathic society was held at the Grand Fraternity hall, in the society's rooms, May 5. Dr. D. Webb Granberry spoke on the subject, "How the Practiioner Can Advance the Science of Osteopathy." He made a plea for more methodical, more intelligent and more authentic case reports, and outlined a system for examination, recording and reference.

The society as a whole entered into a discussion which became spirited and animated so that the time for adjournment arrived before those present were aware. All left feeling convinced of the necessity of keeping more accurate case reports, and determined to advance the science of osteopathy more through their case records. WALTER LEWIS BEITEL, D. O., Sec'y Pro Tem.

DENVER.

The Denver Osteopathic Association met May 2, at the Brown Palace Hotel. Dr. C. C. Reid presented an interesting paper on, "Osteopathic Diagonisis," which was followed by free discussion.

Legislative matters were presented by Dr. N. A. Bolles.

The association voted to arrange to have Dr. William Smith lecture in Denver about the middle of June. FANNIE LAYBOURNE, D. O., Secretary.

A BIG DAMAGE SUIT.

The Seattle, Wash., papers tell of one, C. F. Lathrop, an osteopath, with offices in the Eitel Bldg., in that city, who has brought suit for $75,000 against the physicians, oculists, etc., other tenants of the building who petitioned to have him excluded from the building. The cause of complaint is that these physicians, etc., circulated a petition and caused same to be publish, asking for "osteopaths, neuropaths, chiropractors, advertising specialists, quacks and charletans" to be expelled from the building. Lathrop, whose name does not appear in the osteopathic directory, claims that this action has caused his business to fall off $300 per month, so he asks this large sum as damages.

DR. M. E. CLARK IN NEW YORK.

By concerted effort of the societies meeting in Rochester and Syracuse, N. Y., Doctor Clark visited these two cities May 15 and 16, respectively. There was a full attendance of the profession out to meet him in both cities and fine meetings are reported.

PERSONAL.

Dr. Ella L. Myers, practicing at St. James Court, Broadway and Ninety-second street, New York, was operated on at Memorial hospital, that city, May 12. At last reports she was recovering nicely.

Dr. C. L. Fagan of Stutgart, Ark., has written another song, "God Bless His Eighty Years," and suggests in an advertisement found in this issue that all get a copy and sing it at Kirksville. A good idea. Doctor Fagan has published several pieces of music.

Dr. Charles C. Teall, who practiced for the winter season at Eustis, Fla., has returned with his family to Weedsport, N. Y., which is his temporary address.

Dr. Florence B. Stafford has sold her practice in Pittsburg to Drs. Densmore and will take a needed rest at Windsor, Mo.

MARRIED.

At Alameda, Cal., May 13, Dr. Hester L. Beck to Mr. George B. Abbott. Their future home will be San Francisco.

BORN.

To Mr. and Mrs. E. H. Haslam of Pittsburg, Pa., Sunday, April 19, a son, John Edwin. Mrs. Haslam before marriage was Dr. Isabel Mahaffey.

To Dr. and Mrs. V. P. Urbain, Hamilton, Ohio,, May, 17, a son.

To Drs. Charles C. and Grace H. Teall at Weedspore, N. Y., May 23, a daughter, Mary Grace.

DIED.

At Middletown, N. Y., Thrall hospital, May 4, Dr. Fred R. Griffis, aged 50 years, as result of injuries received in a runaway accident two days previous. Doctor Griffis was a graduate of the Boston Institute of Osteopathy in the class of 1901 and was a successful practitioner. He was a member of the A. O. A., and the State and local societies. He is survived by a wife and one son.

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Of Surgery, X-Radiance, radium as cures of cancer it can at least be said that these may remove or destroy the granulations and in case of recurrence by metastasis the continued use of these means may keep new granulations checked or destroyed. In several cases, however, we have seen a dispersal of a local condition, resulting in general tumor cell invasion.

Osteopathic treatment must claim more. It must claim, (1) to eradicate the localized tumor growth; (2) to check and stop the exaggerated proliferation processes that go on in the localized field; (3) to remove from the constitution the irritation that produces this rapid proliferation; and (4) to reestablish the normal vital relations of the disturbed cells, malajusted tissues and irritated vitality.

In regard to these points both from the theoretical and the experience sides I claim that we are justified in stating that the osteopathic principle of adjustment properly and persistently applied can remove all of the disturbing factors mentioned under the above four heads and consequently cure the patient.

Malignant tumors may be developed from pre-existing benign tumors, *e. g.* melanosarcoma may develop from a pigmented mole, and epithelioma from a naevus, sarcoma from fibromyoma or chondroma, carcinoma from adenoma. In the process of breaking up the malignant tumor, however, there is not the return to the benign form; but the repair process seems to consist of the gradual displacement of the tumor cells and their replacement of fibrous material. In some cases this fibrous material becomes scar tissue; in others the scar tissue encapsulates some of the tumor cells.

The transplantation experiments in connection with mice have indicated some types of reversion of carcinoma to adenoma. In the spontaneous mice-growths there are found many varieties of the single growths in the same tumor mass. In the transplantation of these varieties of growth the resulting tumors are more uniform in structural form. This is explained by the following facts: (*a*) That the simple tumors cannot be transplanted; and (*b*) that the transplanted growths all tend to develop in the direction of the carcinoma. This would mean that carcinomatous reticular substance represents the ultimate pathologic form of the malignant tumors.

Another important point bearing out our views of the pathology is brought out by the observations of Apolant (Muench. Med. Wochenschrift, 1907, LIV, 1720). He states that carcinomatous growths which had developed as such for several generations suddenly changed to the simple adenomatous structure, in the case of animals which had been immunized against carcinoma. This means that the character of the tumor mass depends, not on the localized field alone, but upon the *resisting powers* of the organism. Hence we may conclude, (1) that the starting of a neoplasm is dependent on the lessening of the resistance of the organism; and (2) that the cure of the neoplasm depends on the increase of the resisting power of the organism.

In line with this view, Ehrlich, who has experimented in his own laboratory extensively in connection with the transplantation of carcinomatous cells into the mouse tissue, has come to the conclusion, (1) that *the starting point* of *the impulse* to *tumor formation* and *the stimulous to tumor development depend on a constitutional* weakness involving the entire organic system. (2) We add to this, as a result of our experiments, the further point that *this constitutional weakness consists* of a *lessening* or *inhibition of the control over the cell proliferation*, with the result that the embryonal state of rapid cell proliferation is established. In the *lessening of the power* of control lies the functional secret of benign tumors and in *the inhibition of this power of control lies the physiological secret* of the malignant tumors. In the latter case there *is no hindrance to the cell growth*, with the result that a series of alien processes in the cells concerned develop a new kind of histological tissue with the characteristic of malignancy. (3) From the therapeutic side we add another point of significance, viz., that with the increase of the resisting powers of the entire organism there is a return of the condition of the organism in which there is the power of controlling cell growth and limiting this cell growth to the benign form of adenoma, and with the still further increase of this organic resisting power the tumor growth may entirely disappear.

In this view, if we can get control of the organic resistance, there is no reason why the process of tumor growth reversion may not take place as naturally as any other physiological process that aims at depuration, regeneration and reorganization of the organism. This means that the secret of cure lies in removing all obstructions, toxic, structural, cellular, environmental and building up the nutritive and trophic functions of the organism to their maximum.

The malignant tumors become more important from these facts, (1) that the malignant growths are found more frequently than the benign; (2) that malignancy tends to supervene in connection with the presence of a benign growth; and (3) the cancerous growth seems to originate from epithelial cells. This is of importance because connective tissue cells cannot be transformed into epithelial cells. This emphasizes the fact that in the secondary malignant growths the growth originates really from detached cells. Hence here we have a type of transplantation and implantation. These cells become embedded and the regular or

connective tissue cells atrophy. This makes it apparent that cancer cannot be accounted for by parasitic origin. The causes of the localized development being mechanical irritation or a diathesis that produces the tendency to uncontrolled proliferation of epithelium peculiar to the carcinoma, which is the ultimate malignant tumor form.

In line with this we find malignancy in direct proportion to the extent and degree of irritation. This explains also why the fibro-adenomata tend towards malignancy, the fibrous substance acting as an irritant in connection with the glandular epithelium. This explains also why in some cases we get the mixed conditions of adeno-fibroma and carcinomatous substance. This does not dispute Cohnheim's theory that there must be a congenital matrix of immature or embryonic cells as the base of the tumor. This congenital matrix will remain innocent unless stimulated to active and rapid development by some irritating cause. Hence a benign growth may often remain dormant for many years and become the base of malignant proliferation.

The curability of such conditions is *prima facie* dependent on Cohnheim's supposition, that such embryonic conditions exist in every human body. If so, then in the 3 to 6 per cent that die of cancer, there must be some added causes or conditions that tend to develop this cancerous condition. This is in line with our proposition that the degenerated bioplasm is the *vital basis* of every *nidus* or *germ form*. The peculiar pathologic-histologic form assumed depending on *irritating or disturbing causes, environmental conditions, the degree and character of the lessening or loss of nerve control*. Hence in the cure of these the essential points to be attended to are, the *removal of the irritating or disturbing causes*, the *correction of the environmental conditions and the establishment of normal nerve energy in proper distribution and especially the establishment of nerve control* over the peripheral tissue processes and organ activities. To correct the distribution of nerve force and build up the vital control and nutritive support of the affected parts will work wonders in cancer, as well as in tuberculosis and other kindred diseases.

Let us summarize here our points, (1) the fundamental characteristic of the cancer cell is its apparently unlimited power of proliferation. Hence in relation to contiguous cells it is a powerful embryonic cell. (2) As the nucleus determines cell division and is most active in the histogenetic process, we must center our attention upon the nuclear processes. The question arises here can we modify the nuclear processes so as to check the power of rapid proliferation? In other words can we place this abnormal cell on a basis of equality with contiguous cells?

This raises several questions, (*a*) What stimulates this rapid nuclear process? It is irritation or disturbance of some kind, mechanical or chemical, or it represents the lack of control from the nervous side. (*b*) Chemically the nucleus contains largely nuclein, the chromatin of histology. The cancer cell must thrive at the expense of other cells. In the reparative process of tissues there are two active agents, the *white cells of the blood* and *the local tissue cells*. The leucocytes collect in masses in the disturbed area and furnish food for the development of the fixed tissue cells. The supply acts as a stimulus to growth. In this supply field the chief substance is nuclein. This seems to indicate (*c*) that while the chemical substance of nuclein supplies the material for growth the actual stimulus to growth comes from the leucocytes which by breaking down furnish the *pabulum nuclein*.

(*d*) Is there any evidence of this? Yes, around the cancerous mass we find a mass of indurated infiltrated leucocytes, The blood plasma does not contain the nucleo-proteid elements, but acquires them in connection with leucocytic disintegration. Hence there would seem to be in the rapid proliferation of the cancer cells a demand for leucocytosis and leucocytic disintegration. (*e*) This explains why erysipelas and the serum treatment in connection with the erysipelas toxin has tended to check cancer growth. Because this erysipelatous condition developing in the lymphatic field stimulates the multiplication of leucocytes for reparative processes. This we believe is the basis of corrective and stimulative treatment from the blood side, tending to determine leucocytes to the area of rapid proliferation it tends *to deprive* the cancer cells of pabulum, because living rather than dead leucocytes are thrown in. Increased circulation with the correction of the disturbances and lesions tends to establish nerve control and this means the *establishment of repair processes in place of mere growth processes*.

(3) It is a significant fact brought out by the carcinomata in mice that the growths become stationary at a certain stage in development when the pabulum becomes limited in supply. This means that in the tumor development the process is one not of pathological development but of hyperphysiological growth. This is explained largely by the fact that it depends upon hyperlymphatic conditions and this in turn explains the frequent cancer nidus in lymphatic glands. Wherever then a lymphatic process is active there we find the basis of a corrective medium tending to check the cancerous growth. In other words lymphatic predominance tends to exaggerate the importance of repair and to limit the process of growth. The entire cell activity of the cancer cell seems to be expended in preliferation. Hence this can be checked only by exhausting the nutrient supplies that keep up the growth.

(4) As an aid to this corrective process a diet free from nuclein and nucleo-proteid is to be suggested. Nuclein is chemically rich in phosphorus. The purin free diet used in gout would be an excellent diet in cancer. A vegetarian diet largely limited in nitrogenous sup-

plies is to be recommended. This explains the observations of Dr. Adams, in Chicago, in which he asserts the greatest frequency of cancer among the foreigu born, because they have been accustomed to a limited meat or entirely meat free diet, whereas in coming to this country they become excessive meat users. In diet also a modified phosphorus diet should be used. To eliminate phosphorus entirely would react upon the nervous system. But the use of a minimum of phosphoric elements would leave no excess after the nutrition of the nervous system.

(5) The thorough stimulation of the blood circulation to keep the blood from becoming static in the cancer field tends to keep away the leucocytes from this field and prevent their disinregration, thus cutting off the supplies of nutriment. In addition this would raise the standard of leucocytic activity with full control over the blood processes. The leucocyte is the active cell in the blood changes and to get control of the leucocytes gives us control over the cycle of corpuscular changes that lies at the the foundation of blood regeneration.

Another result of my experiments is that I have been led to believe the conditions which favor tumor growth are not so much local as is generally supposed; but they are constitutional and extraneous (chemical).

Flexner and Jobling have found that by injecting the heated extracts of a transplantable tumor into an animal makes the animal more susceptible to inoculation with living tissue form the same tumor types. Why? Because of aggravated hypersensitization.

Dr. Leo Loeb (Journ. Med. Research Dec. 1907, XVII, p. 299) found that when he took parts from a mammary adenoma in a rat and transplanted them in another rat, the implanted tissue became necrotic either partially or completely; but when implanted in the same rat in which they developed no necrosis developed. Similar experiments have been made on the guinea pig and dog with similar results. What does this signify? (1) That in the bodies of those animals that developed the tumor there are certain substances which maintain the vital condition of the tumor substance and that these are not found in the bodies of other animals. (2) These substances, whether the original cause of tumor formation or not are at least a favorable constitutional medium for development of the tumor. (3) In the case of supervening pregnacy in the animal in which implantation takes place pregnancy seems to increase the tumor development. (4) The stimulus to tumor growth arises in connection with the presence of certain substances circulating in the fluids of the body and an inhibitive influence is exerted upon tumor growth by certain substances in the body.

According to this tumors may be classified into types that depend for development upon the environment of the *body* into which transplanted or the environment of the chemical constituents of the body. Hence we find tumors (*a*) that grow only in the same type of body in which they originate; *e. g*,, there is a carcinoma that can be transplanted only in the same type of species; (*b*) that grow only in the particular individual organism in which they develop and can not be transplanted into other bodies of the same species. Here we have a tumor that can be resisted by the normal tissues of the same species; (*c*) that grow only in the same species of origin; (*d*) that grow in other species from those of origin, *e. g.* the lympho-sarcoma of the dog has been transplanted into other species.

Dr. P. W. Philip (Zeitschrift fur Krebsforschung, V. No. 3, p. 326), presents a monograph on cancer in children. 390 cases are collected and they are classified according to location. Among the noticable points are, (1) the extremely rare presence of epithelioma; (2) an almost entire absence of cancer involving the breast or uteras in the female sex; (3) the majority of the cases developed at and around puberty, between 9 and 15 years of age; (4) the principal fields of development are, (*a*) the digestive tract 29 % being in the intestines; (*b*) the ovaries; and (*c*) the skin. (5) These cases of observed cancer in children seem to support the theory of *irritation* as the field of cancerous etiology, at least in connection with the localization of the tumor. Back of the localization lies the field of constitutional conditions.

The curability of tumors then depends on the answer to the question, is the cause of the tumor removable? If so, then it is curable. In addition to the removal of the cause or causes, sufficient vitality and resisting power on the part of the organism for the removal of the causes and the reconstruction of the vitiated system. The general nutritive conditions must be reached, (1) to purify and cleanse, (2) to establish thorough trophic conditions, and (3) to replenish the system so as to make the system repair the local conditions.

We have been asked, are drugs used at all? One of the chief points in this method is the elimination from the system of *all drugs* formerly used by the patient. To rid the system of every vestige of poison, both active and passive, is one of the essential conditions. Even noxious and irritating food elements must be eliminated so as to get the body nutrition on an absolutely simple proximate principle basis.

In summarizing our points we note, (1) structural lesions involving the nerves, blood vessels and lymph supply to the localized site of the tumor are marked. Rib lesions in breast conditions, dorsal and lumbo-sacral lesions in pelvic conditions, produce stasis of blood, obstructed drainage, irritation of the nerve supply, in co-ordination of activities and these result in atrophic and non-trophic effects. (2) The localization of the site of disturbance makes this localized area the center of toxic accumulation, toxic nutrition, perverted tissue

growth, with a reaction against the systemic life, the local proliferation becoming more important than systemic repair. (3) The cause or causes of localization may be summarized, (*a*) lesions that weaken a local part so as to make it a dumping ground for the refuse of the body and the wastes of a life history of indiscretions in diet, manner of life, modes of dress, previous disease, etc.; (*b*) traumatism associated with injuries, X-Ray dissociation by radiant exhaustion, proliferation of new tissue in case of surgical operations, abscesses, lacerations, etc., the result of these being the dissociation of the structural units, the cells, with resultant perversion of nutrition and deposit of waste; (*c*) the abuse of certain organs or functional activities reacts upon the nervous system, weakening the nerve force, disturbing the trophic relations of the cells and tissues, cutting off nerve control and trophic influence, resulting in dissociation of the cell units.

(4) Each case presents different types of lesions, some of which are primary and others secondary, the reaction e. g. from the changes caused by traumatism, laceration, etc. producing malignant proliferation. Here we can trace primary lesions back into the life history of the patient and secondary lesions as maintaining lesions in connection with the localized tumor. Compensatory lesions are frequently the basis for this type, being the effort of the stronger parts of the organism to resist the weaker, the stronger being unable to sustain the load and consequently weakening itself.

(5) Toxic conditions are associated with the localized conditions. Here we have a perverted metabolism with accumulation of subkatabolic by-products. If the blood stream, the nerve centers and organs concerned in blood replenishing become poisoned, the nutritive and trophic supplies become vitiated and this subkatabolism is at its maximum in the nervous system, the poisonous accumulation taking place either in the crude and chemical form or in the dynamic form. This condition must be dealt with when present by antidotal treatment, to break up the combinations formed on the toxic basis and to remove these from the cells and tissues so as to eliminate them from the body.

The vitiated growth is outside the nervous system and it represents an attempted excretion from the centers of vitality. When this excretion reaches a certain stage or is of a certain type, the new growth is vitiated and representing a new toxic life condition it becomes separately organized. It is this separate organization that represents the malignant tumor in which we have an independent life and a life process that operates by destroying the body, drawing away from the body its nutriment and vitiating the nutrition of the rest of the body.

When such conditions exist the only method of removal that we have found satisfactory and successful is by the use of the dynamic equivalent of the drug or toxic substance. We have been criticised for presumably discovering homeopathy. Not by any means. This is not the homeopathic principle. The homeopathic principle is *sinidimum* based on symptoms. Our principle is that of the *same substance in its dynamic* or *vibratile force equivalent.* Why? (1) Because the crude substance is not present in the organism, whereas we can get the reactions of the poisonous substance, indicating that the poison lies in the system in a dynamic or force (molecular) form. (2) To add still more of the crude substance to the system would still further complicate the poisonous condition of the system without getting rid of the actual present poison. (3) Our study of the detoxinating glands and organs in the body indicated to us the fact that these glands took the crude materials that are toxic, subjected them to refined metabolic and secretory processes and converted them into a refined secretion that operates primarily upon and secondarily through the different portions of the nervous system, upon the different tissues of the body for repair and functional action.

This meant and means, as I interpret it, that the method of the human laboratory in dealing with poisons in the system is to take the poisons or poisoned materials and subject them to such processes as will convert them into nerve energy or force, this nerve energy or force being used by the nervous system for the modification of the constrictor and dilator activities, and by the muscles and organs from the rhythmic side for the liberation of energy, work, etc. This explains the exhaustion typical of poisoning and the overworked condition that results in death. It was this principle that led us to adopt a method of dynamizing the crude substance in order to get it in force form so that it might operate for destructive and eliminative purposes. We first tested it on the blood.

This method, it is to be noted, is to be used solely for the removal of something foreign or alien from the cells, tissues or organs and therefore represents an exclusively adjustive measure from the corrective standpoint. It applies to the foreign poison, whether taken into the system or made in the system in auto-intoxication, or as the toxin of disease when the systemic toxin destroying agencies fail to be equal to the task of elimination. We found poisoning a special characteristic of the tumor pathology and set to work to seek its explanation and a method to eliminate it. This intoxication represents the active poisoning of the system by the use of crude poisons or the passive poisoning in which perverted subkatabolism intoxicates the tissues and cells. This may result in the vitiation of the structure of the nerve cells. It is not a case of simple malnutrition. The tissues themselves if put to the test will give chemical or organic reactions to poisons, indicating cumulative action. The anatomical changes in this case are found in the structural integrity of the cells and tissues.

In this field lie such conditions as chronic gonorrheization, syphilization, alcoholism and intoxication by any other diseases or systemic toxin. The tumor or growth in such cases is an outlet for the intoxicated waste and really represents an effort of nature to throw out into the less vital tissue-structures elements which if they accumulated in the vital centers would cause rapid death. From this side a tumor represents an effort of nature to prolong the life of the patient. To get rid of it, then, we must *remove the cause* that lies back of this excretory process. In doing so we will make the tumor development unnecessary, cut off the vitiated nutrition and we may rest assured that such a perverted growth will not live upon the normal nutrition of the organism.

When such poisons are present in the system I have not found that manipulation without antidotal measures can successfully cope with the conditions. Why? Because nature has exhausted her own resources already in attempted antidotal and detoxination treatment. The result is the weakening of that side of the system which has been taxed beyond its capacity.

Hence, (1) in those cases in which poisonous substances have not entered the system, the poisons are those of auto-toxemia and in this case the body prepares and by proper treatment can be stimulated to prepare antidotes for all auto-toxaemic materials. Here no extraneous antidotes are needed except when the detoxinating organs are defunctionalized. (2) In those cases in which poisons have been introduced into the body and have accumulated therein my experience has been that these must be antidoted in order to secure their removal. Circulation will not eliminate these because the substance becomes dynamically bound up in the bioplasm and every reconstructed molecule is rebuilt on this vitiated base, gives reaction to the poison test and behaves as if actually poisoned.

In such cases our method may be summarized in these propositions, (1) the high potential equivalent or vibratile force of the substance itself antidotes and throws down into the circulation for elimination; (2) the high potential equivalent of the combination of crude substances, exactly in the same proportional basis of the combination, antidotes the effects produced upon the minute structural elements; (3) the high potential equivalent of the noside in connection with auto-intoxication products and disease toxins antidotes the substances, destroys the effects and overcomes the accumulation, preparing for the elimination of such intoxication products.

These points we have demonstrated by the application to animals and to human subjects of the principles in cases of mercurialization, syphilization, bromidism, morphinism, cocainism, vaccination.

This applies, as we stated, only where a case is complicated by toxicity, the toxicity representing an obstuctive lesion which must be corrected as well as the lesions of bone, muscle, ligament. So long as the toxic condition remains, it obstructs the vitality of the patient, preventing nerve energy and blood circulation from being normal, this reacting upon viscero and vaso-activity in such a way as to prevent normal functioning. This weakens the system and prepares for organic dissolution accompanying the rapid tumor development. As tumors grow toxicity destroys the organism.

Cure in such cases depends upon the possibility of the vitality of the patient standing out during the reconstructive process required in the tissues and organs involved, as well as the power of the organism to eliminate all toxic products, and the general resisting power of the organism raised to such a standard as to stand the strain of the correction of structural adjustment, the construction and reconstruction of the tissues on a basis that is free from vitiated nutrition and toxic trophicity.

We claim (1) that we can adjust structures and thus control the physiological processes of the organism. (2) If so then by adapting the environment to the organism, in the hygienic and chemical physiological field; we can deal with any tumorous conditions that may overtake the human body. In both of these types of treatment we are distinctly within the limits of the osteopathic principle of adjustment.

The field of chemical physiology is the newer field of osteopathic adjustment and to this field I wish to direct special attention because without this adjustment the structural adjustment is insufficient as a therapeutic means.

Professor Sir A. E. Wright, of London, in the Herter lectures at Johns Hopkins University last fall, stated as the result of experiments that a moderate dose results in considerable reaction and a slight elevation of the opsonic index, whereas still smaller doses diminished up to the infinitesimal point increased the reaction and also the opsonic index. This is the idea that led us to infinitesimal vibration equivalent as the dynamic basis of dynamic anti dotes, viz.: the fact that the use of certain substances in the dynamized form raises the standard of active vital energy to the point where it reacts upon the diseased part or condition, elevating it to the standard of the vital energy. This is true only, however, in the toxic field.

Our first experiment was in connection with a case that had been fed upon arsenic for years. The patient displayed all the symptoms of arsenical poisoning. The discharging fluid from a pelvic tumor was found to be lethal to animals with arsenical death symptoms, and yet no actual arsenic could be analyzed from the compound material by the use of the most accurate chemical tests. The patient's blood behaved in a similar manner to the

fluid discharge. The thousandth dynamic equivalent of the blood and fluid produced the complete picture symptomatology of arsenicum alba with disturbing aggravations or reactions. These aggravations reacted upon the patient's nervous system giving an aggravated type of paralysis agitans. That it was a toxic reaction operating through the nervous system upon the muscle field was evident from the fact that during sleep the patient was entirely free from the paralysis agitans symptoms.

The question arises here, does medication in the form of a serum, as presented in modern medicine, offer any solution of the problem of cure? The tumor process is an excretion, a nature elimination, and in reality it is an effort of nature to rid the system of certain obnoxious substances. Can we aid this effort of nature by elimination and by increased resistance of the organism? How can this be done?

Many years ago when studying the natural history of plants, minerals and other substances I conceived the idea that these were foreign to the human body. In biology I came across the factor of *life* and came to the conclusion that only in the realm of biological science could we reach the evolution of *medicinal* healing. I concluded that the therapeutics of pharmacology so-called was ancient history, just like charms, snails, entrails and such like.

My study of the human body led me to the conclusion that it represented a mechanism wonderfully constructed and beautifully fitted; but that to complete the conception of the living human body we must view it as an organism, the central factor of which is *life*. No definition of life extant has ever satisfied me and yet we cannot get away from the fact that vitality is the secret of organic existence and that for the organic life there is a self-sufficiency in the organism, a capacity to limit and define the field of operations of everything within the organism and a power to extract from the raw materials of food and air sufficient material substance to replenish the organic bioplasm and to make this bioplasm suitable food for the cells and tissues of the body. This limits the material supplies to the proximate principles of the body and gives to the bioplasmic processes the power of vitalizing those proximate principles in order to make them suitable for the nutritive functions.

I concluded, therefore, that the fundamental sciences of life are *chemistry* of the proximate principles of the body; *anatomy* of the adjusted and articulated structures, the applied anatomy of the relations of parts of the body to one another; and *physiology* representing vitality, the vital processes and the functional activities of the cells, tissues, organs, and the organism; *pathology* being a subordinate division of physiology representing variations from normal in the vital activities, viz: perversion and changes in the structures that give expression to these activities.

This fundamental knowledge led me to the conclusion that no system of healing can be a truly living system that does not conform to the conditions implied in these basic sciences.

A historical survey of the science and art of healing disclosed to me the fact that we have stuck too close to the medicine of tradition. The fact that *substances* of various kinds were used by patriarchs of a thousand years ago seemed to make it imperative that they or similar substances be used in modern therapeutics. The difference in the schools or systems narrows itself down to the regular versus the homeopathic system, the former using the crude substance and the latter a potency or diminished dosage of the same and kindred substances.

While science has progressed from a chemical and physical view to a biological conception, medicine has remained pharmacal. The only exceptions to this rule are the so-called biologic products of the regulars in the form of serums, antitoxins and the tissue remedies and the nosodes of the homeopathic school.

The real view of healing as I take it that has evolved from the mysticism of medication of all schools must be based upon certain simple facts, (1) the absolute supremacy of the biological view of the organism; (2) the definite declaration that no foreign substance can have any permanent therapeutic effect, such foreign substance operating purely by its overbearing action upon the vital processes and consequently resulting in the exhaustion rather than the conservation of energy; (3) the only therapeutic action that lies within the biologic possibilities of the organism depends upon increasing the defensive power of the organism; (4) all medication must be physiological and to be physiological must be compounded in the organism laboratories.

What then do we want to get? (a) A perfect adjustment of the structure of the organism so as to co-ordinate the distribution of the life forces in connection with the articulatory conditions of the separate structures in their relations to each other. The basis of organic life is the mobility of organ and tissue and the articulation of structure in relation to structure. Viscero-motor and vaso-moter rhythmic activity is essential to life and when such is suspended there is an inert condition of the structure that means either the dying or the death condition of the structure. (b) The vibratile force of the organism distributed to the different fields of the organism represents the life energy and without this life energy there can be no life phenomena; that is, the organism is either dead or dying. What we want and need then if anything is needed in the medication field is the vibratile force as a physiological equivalent.

Under ordinary circumstances the body itself can furnish this vibratility because of its

self-sufficiency. But if a foreign vibratility exists within the organism representing an organizing life force foreign to the life force of the organism this must be removed because it is an obstructive force. This foreign force we find operating in case of tumors. As the blood is the life we find the foreign force represented in the blood just as the nature force is represented there. Hence I begin with the human blood, because I believe it is under all circumstances the medicine of nature. Why? Because I lay down the maxim, (1) of the self-sufficiency of the organism in apparatic organic processes and materials, and (2) no materials or their equivalent should be added to the organism but those that correspond with the proximate principles. Therefore I use (1) the blood in connection with the adjustment and articulation of the body structures, because these articulations represent the distribution of the blood with all the organic life force it has to all parts of the organism.

Secondary to this I use the blood extracted from the individual body of the patient, because it is an index of and represents the physiological condition of the entire body. All nosodes in that body are modified by and receive characteristic qualities from that particular vitality. The blood thus extracted is used, therefore, (a) for diagnostic purposes, to bring out the physiological conditions of the blood elements, viz: the cells, corpuscles and plasma; and (b) in the symptomatic field, to bring out aggravations or reactions by means of the potential or dynamic force of the blood to the patient himself or herself. (c) It is also used for curative purposes. It may be entirely curative by the properly corrected distribution in its crude form by manipulative correction of the structures: but when it is laden with foreign elements or the cumulative force of foreign elements, the dynamized blood energy may be used for curative purposes. This may be sufficient if no foreign element has been entered into the medication or diet or reconstruction and repair of the body in the past life history of the patient. If, however, any substance has entered into those fields foreign to the organic substance then there is a cell for other dynamic forces to follow up and complete the processes of freedom from alien influence. For example, digitalis cumulates in the organism by forming a loose combination with the cardiac muscle. Hence (2) I use the dynamic equivalent of the toxic or other foreign substance to displace it and secure its elimination. The dynamic is used because it is a mechanical force like manipulation. The place of the potentials of the metals, non-metal, vegetables, etc., is to get control of the conditions developed by the use of these in the toxic sense. For example the quininized patient must get quinine dynamized before the quinine condition can be cleared up, because the quinine combination in the system must be broken loose in order that the vatality may have complete control of its field of operation. (3) There are certain substances which are organic, representing the tissue elements, viz: sulphur, phosphorus, calcium, hydrochloride acid, sodium chloride, potassium, etc. These in potential equivalent represent the secreted substances and salts of the body and must always be used from the force side to get the vibratile action upon the tissue involved. Potentization means the preparation of the dynamized equivalent to convert into a nerve energy equivalent in the organism which represents a certain grade of vibratility. (4) The nosode preparations are individually prepared from the disease toxin condition of the patient, because in the particular patient the disease toxin assumes a certain characteristic dependent on individual vitality.

Recently I treated a case of vaccination in which after several months a vaccinosis ulcer almost the size of the hand developed at the point of the vaccination. *Vaccininum* had been administered by a brother physician. This did not clear up, in fact did not benefit the case. I diagnosed the case as one of vaccine toxicity. I took a specimen of the blood and potentized to the 1000th and then gave the potential antidote. This developed aggravating reactions that did not disappear. As these persisted I took the toxic discharge from the vaccine abscess and potentized it to the 1000th and gave the potential as an antidote to the patient. The result was that aggravations disappeared, the wound healed up, leaving but a slightly perceptible scar on the site of the vaccine ulcer.

(5) The most recent research in the biological field of opsonins is really along these lines. The bacterins are supposed to increase the opsonic index in the blood, thus making soluble the masses that contain the toxins and throwing them into the line of elimination from the tissues.

Immunity may be developed, either (1) passively by devoloping the antitoxin in the animal field of the horse, this animalized antitoxin then being given to the human subject, so as to increase the resisting power of the organism by the use of the animally developed antitoxic protective substance. This is a process of infinitesimal dilution in the blood of the horse as the menstrum; (2) actively, the animal cell is compelled to produce its own antitoxic protective substance by destroying the bacillus, and preparing from its substance the opsonin equivalent. This it is doing all the time to keep up native immunity.

In both of these cases it is to be noted that the development of the protective substance depends upon and must be produced in the field of the vital laboratory. Professor Goldscheider says, "the most natural therapeutics consist in the use of specific remedies in the sense that these correspond to the substances produced by the healing processes, or that they cause the production or heightened action of these defensive substances or anti-bodies."

This means that curative action depends on arousing the latent defensive powers of the body or else represents "the power to force upon the organism curative reactions of which

it is not of itself capable, reactions identical with, or intimately related to the natural curative reactions." The so called germs represent invaders of the field of the vital tissues and such invasion is possible only when the vital nutrition of these tissues is lowered so as to make the invasion possible. To prevent the invasion we must increase the resisting power to such a degree that invasion will be impossible. Bacteriology has demonstrated that germs in generating toxins also generate antitoxins, so that each infection process represents some stimulus to increased native resistance to the germ action in the particular case. This resistive power according to the opsonic theory means the development of opsonins in the blood as a form of immunity reaction. These antibodies then are present and are being persistantly developed as the bacteriologic process goes on in the body. Hence the opsonic theory uses the killed bacteria or the living attentuated bacillus as a means of exciting resistive reaction in the organism, with the object of destroying the primary germ action and thus increasing the opsonic index.

What more natural than that the blood should be used in the vibratile dynamic form with this same purpose? If the living attenuated bacillus is efficient, is not the vibratile attenuated reaction also sufficient? More so, because it is in the force or mechanical form?

We carry this theory a step further. Every drug substance, as well as every germ has the power of creating a vital reaction directly antagonistic to its own primary action. In the case of the morphine fiend a gradually increasing dose is demanded by the craving appetite and yet the organism is artificially immune from the toxic action of the increased dose. Why? Because the toxic substance excites a resistive reaction to the primary drug action. Hence in toxicity from the use or accumulation of drugs, the opsonic theory points to the conclusion, that we can remove or reduce the primary drug action and at the same time arouse the resistive force of nature. This is done by the attenuated substance in the same way as the germ reaction is produced by the attenuated bacillus. Hence the highly dynamized arsenic, morphine, opium will produce immunity from and actually cure the poisoning taking place in the organism from these toxic substances.

(6) This is the principle that we have applied toxicologically in the cure of poisoned conditions in the malignant diseases, using either the potential attenuation of the blood or of the poison itself and in some cases both of these.

Prof. Von Behring ascribes the value of vaccination and antitoxins to "the immunizing action of antitoxin in infinitesimal dilution." "the influence previously exerted by a virus similar in character to the fatal anthrax virus."

Prof. A. E. Wright of London uses the bacterial vaccines in the case of the infectious diseases. These vaccines are attenuated in infinitesimal quantities through the live blood of the horse. Trudeau in connection with the treatment of tuberculosis starts every non-febrile case with the ten thousandth of a mg. and the febrile cases with the one hundred thousandth of a mg. Why? Because he measures the potential of attenuation by the degree of vibratility in the patient, non-febrile and febrile.

In other words, the serum theory of biological medicine reduces itself to the use of the actually existent primary germ and primary toxin, by the use of the attenuated germ and the attenuated toxin, for the purpose of securing resistive reaction on the part of nature, by the production of protective substances in the form of antibodies. What about the serum?

Our objection to this is two-fold, (1) there is the use of a foreign substance; and (2) there is also the use of a foreign medium like the blood of the horse as the medium of attenuation. Recently it has been demonstrated that certain individuals are susceptible to the horse serum and this is said to explain deaths from the use of antitoxin. This at least demonstrates the latent danger of such a foreign menstruum. This makes the antibodies or antitoxin foreign to the organism into which it is injected; and as such foreign bodies require to be assimilated to the organism, the principle is unbiologic and the method unphysiologic.

The blood of the individual is his own in the most peculiar sense. Similarly the germs and toxins are peculiar, because associated with the vital characteristics of the individual organism in which produced and closely associated in production with degradation and degeneration of the bioplasm of the individual body. If a condition of toxicity, then, is to be antidoted, if a germ infection or germ action is to be counteracted by an antitoxin, the natural process is to produce substances whose reactions are identical with or closely related to the toxic substances or the germs in the particular case.

As the foreign medium, viz: the blood or lymph of a horse or other animal may be contaminated or impure, and even if pure is foreign to the human blood or lymph, attenuation can be better accomplished in a pure and inert medium like distilled water and alcohol. In addition, the attenuation in the latter case divests the substance used of all its crude poison characteristics and invests it with a force and energy-equivalent that at once appeals to the resistive reaction of the vitality, calling forth the native defensive energy of the organism. This enables us to use the *defensive force* as a toxicologic agent without hazarding the body by exposing it to actively dangerous and virulent poisons or the cultures of germs and their toxins.

Cumulative evidence of the points in our theory are coming to the light. (1) Dr. Victor Bonney in the Hunterian Lectures at the Royal College of Surgeons in London recently

demonstrated that cancer never attacks perfectly healthy tissues but always is preceded by marked tissue changes. (2) Dr. Simpson Handley in the laboratory of Middlesex Hospital, London, has shown that the local spread of cancer takes place largely through the lymphatics. (3) Drs. Gaylord & Clowes in the recently published reports of the Cancer Laboratory of the New York State Department of Health for 1904-5, 1905 6, reports 14 cases of well authenticated cases of carcinomatous tumors that have been cured and 8 other cases in which there is strong evidence of cure. According to these experimenters malignant growth can be resisted by the organism under proper conditions of the organism. They claim that immunity is developed by the development in the body of an immunizing substance. They claim that the cure takes place by means of restoring to normal the functional action of the aberrant cells, and not by cytolysis. It seems to be a matter of tumor growth, because the nucleo-proteids extracted from malignant tumors have no effect upon the growth. This indicates that the problem is one of *relation to vital growth* and *resisting power in the organism.*

(4) The opsonic theory of Wright was based on the fact that having separated the white blood cells from the plasma, he found that those cells which in the blood stream act the part of scavenger phagocytes refused to *devour* the foreign and waste elements of the blood. From this he concluded that in the blood stream there must be some special chemical substance, that *either* appetized the white blood cells, or *else* flavored the foreign substance in such a way as to whet the appetite of these cells. It is this substance that he called opsonin.

Certain facts must here be recognized, (a) the chemistry of substances in the blood stream and their chemical reactions are different when the blood is alive from what they become when it is dead; (b) this living chemistry has some definite relation to the living cells of the blood, the absorbed materials taken into the blood stream assuring certain specific chemical reactions when brought under the vital influence of the leucocytes; (c) this means that the opsonic substance must be bio-chemical and can be produced only within the living blood stream when acted upon by the living cells of the blood. Hence (d) it is physiologically impossible to prepare this substance in any medium outside of the blood. Therefore (e) it becomes necessary to devise means to compel the blood in the diseased organism to produced its own opsonin. Biogen or bioplasm manufacture in the field of the nervous system by which the body is supplied from the nervous system with the most refined nutritive supplies, and the fact that trophic supplies and trophic influence pass to the tissues and organs from the nerve cells along the nerve paths indicates that the *ultimate source* of *this opsonic substance* is to be traced *to the laboratory of the nervous system.*

By dissections of tubercular cadavers and subjects who have died of localized cancerous conditions I have satisfied myself that back of the tubercular and cancerous focus lie *nerve degradation, nerve degeneration, nerve cell exhaustion and depletion.* The result of this nervous depreciation is the practical isolation and separation of the focal field from nervous influence control and restraint, with the resultant *unchecked proliferation, low grade nutritive processes, absence of a coordinated development in line with the organic life.*

To liberate these nerves, freeing them from obstructive irritation, and thus make the chain of neurones thoroughly physiological in activity, in order that they may perform their normal functions (a) of *energy and force generation,* (b) *of constructive metabolism in the prepartion and elaboration of secretory materials sufficient to build up nutrition in all the body, and* (c) *of the balanced distribution of these forces and substances throughthe trophic cells in the anterior horns* of the *spinal cord and their corresponding axones—this is the purpose of osteopathic corrective treatment.*

Sajous in his compendious work on "*Internal Secretions*" demonstrates that these secretions represent the medicines of the system. All our experiments, clinical observations and results demonstrate the truth of this principle. Nutrition, repair and regeneration are ultimately based upon the elaboration and distribution of the internal secretions. The quality of the blood, the character of the tissue structures, the cooperation and correlation among the functional processes, the adjustment of activities and the possibilities of cure, all depend upon these secretions. What regulates these? *Adjusted structural relations, corrected distribution of fluids and forces, balance of elaboration and elimination, proper action and reaction between the organism and environment*—the adjustive conditions are absolutely essential.

School Inspection

As the Still College at Des Moines and the Los Angeles College of California are now completing their third year and wish to make application for entrance into the Associated Colleges and to have their graduates eligible to membership in the A. O. A., after consultation with the Associated Colleges the Board of Trustees of the A. O. A. appointed Dr. N. Alden Bolles of Denver to visit these schools, thoroughly inspect them as to their condition and work, and the report will be considered by the Board and Association at the time of the Kirksville meeting.

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REMOVALS.

Augusta Nichols from W. Loan & Trust Bldg., to 1510 H St., N. E., Washington, D. C.
John A. McCabe from San Diego, Cal., to Alexandria, Minn.
V. P. Urbain from 111 Dayton St., to 621 Reutchler Bldg., Hamilton, O.
Delia B. Randall from Jackson to Box 147, Canton, Miss.
W. H. Bowdoin, from Albany to 401 Capitol Ave., Atlanta, Ga.
E. L. Harris, from Owensboro, Ky., to 602 Nat. Bank Bldg., Savannah, Ga.
M. K. Rau, from 247 Main St., E., to The Colonial, 8 Park Ave., Rochester, N. Y.
Charles S. Fisher, from 608 Merrill Bldg., to 1208 Majestic Bldg., Milwaukee, Wis.
Adele A. Allison, from Colorado City, Colo., to Anaconda, Mont.
Ella B. Veazie, from Kirksville, Mo., to Kansas City, Mo.
Walter Guthridge, from Corning, N. Y., to 1122 Providence Ave., Spokane, Wash.
H. M. Stoel, from Des Moines, Ia., to Houghton, Mich.
Ella Lake Myers, from 109 W. Eighty-Fourth St., to St. James Court, Ninety-second St. and Broadway, N. Y.
Walter Lewis Beitel, from Keith's Theater Bldg., to 221-222 Land Title Bldg., Philadelphia, Pa.
E. J. Carson, from Wilson, N. C., to Minerel Wells, Texas.
C. G. Parmelee, from Kirksville, Mo., to P. O. Box 53, Denver, Colo.
Millie Rhodes, from 34 Jefferson Ave., to 22 Stuyvesant Ave., Brooklyn, N. Y.
Leslie S. Keyes, from Hulet Blk., to 22 Syndicate Blk., Minneapolis, Minn.
Annette H. Beckwith, from Eureka Springs, Ark., to 121 S. Fourth St., Raton, N. M.
Ira Spencer and Elizabeth Bundy Frame, from Pennsylvania Bldg., to 1619 Race St., Philadelphia, Pa.
L. J. Goodrich, from Corning to 5 Aiken Blk., Santa Barbara, Cal.
A. A. Basye, from Statesville to Wilson, N. C.
F. B. Stafford, from Pittsburg, Pa., to Windsor, Mo.
Dr. Ella X. Quinn has left office in St. Augustine, Fla., for her home in Baltimore, Md. Dr. Mary Steele Ewing will be in charge of the Florida office during the summer.
Jane E. Lockwood, from Buffalo to South Dennis, Mass, for the summer months; also in Hyannis, Mass., twice each week, Monday and Friday.

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Drs. Louden and Willard, the committee for soliciting the permanent endowment fund for the college, have secured the co-operation and assistance to date of the following who will act as solicitors for the fund in their respective states:
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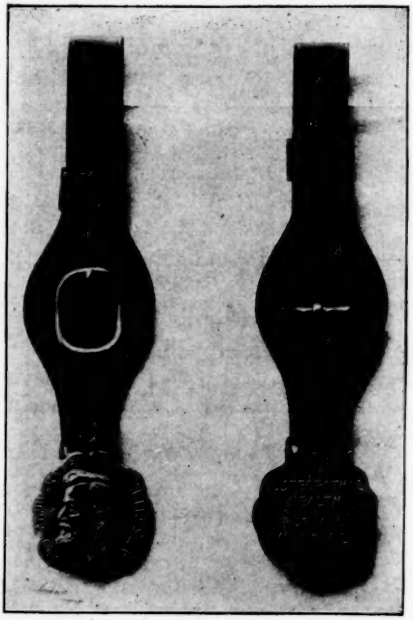

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